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Intervening With Foster Parents to Enhance Biobehavioral Outcomes Among Infants and Toddlers

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Abstract

Children in foster care face a number of challenges that threaten their ability to form attachment relationships with foster parents and to regulate their behavior and biology. The authors describe the Attachment and Biobehavioral Catch-Up (ABC) intervention, an evidence-based intervention aimed at helping foster children develop trusting relationships with foster parents and develop better biological and behavioral regulation. The authors present research that led to the development of the ABC intervention, outcome research of randomized clinical trials, and a case example of a foster parent and child who participated in the ABC intervention. Finally, issues related to the broader system of care that are likely to affect children's adjustment (e.g., foster caregiver commitment and placement stability) are discussed.

Twenty-month-old Jason was placed into foster care for the first time with Betty, an experienced foster mother who had previously fostered more than 50 children. Betty ran a family child care center in her home with 6 children from the neighborhood. Jason and the other foster child were sent out to another child care center, however, because Betty had the maximum number of children for whom she could care in her center. Jason had some difficulty adjusting to the transition to the other child care center every day and was difficult to manage. The day care administrator asked Betty not to bring Jason back because he required more staff time than other children, so Betty let the foster care unit know he would need a new foster home. The foster care unit moved Jason from Betty's to Charlene's home.

Charlene had previously fostered only one child. When first placed with Charlene, Jason did not turn to Charlene for reassurance but rather turned away from her. Charlene was very patient and nurturing, and over time Jason gradually began turning to her when distressed. Charlene was enrolled in a 10-session intervention, the Attachment and Biobehavioral Catch-Up (ABC) intervention, that helped her provide nurturance to Jason early on and follow his lead with delight. She felt as if she could see the changes in both herself and Jason as she progressed through the intervention.

As with Jason, the capacity of young children in foster care to form trusting relationships with their foster parents and to regulate behavior and physiology are affected by many things—issues including what the children bring to the new relationship, what the foster parents bring to the relationship, and how the system of foster care operates. Here we describe some of these issues that we consider most salient and then describe an intervention developed to target these issues. Finally, we discuss issues within the foster care system that affect outcomes.

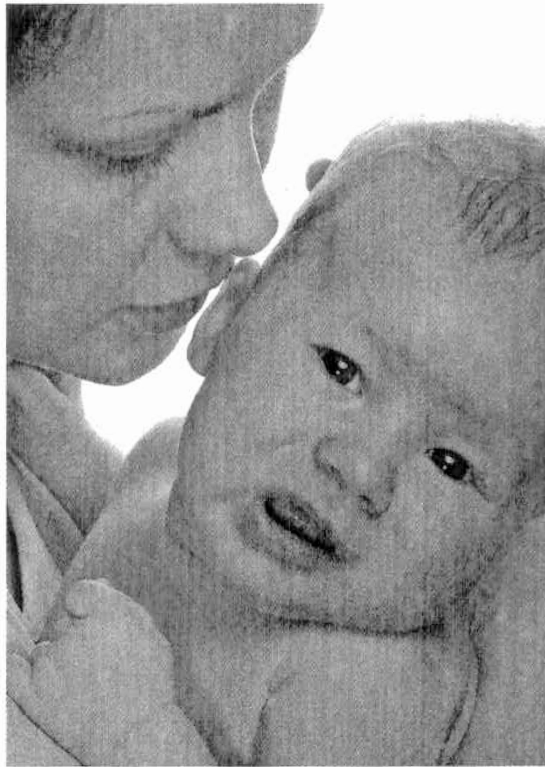
Issue 1: Babies in foster care often do not know how to seek comfort from foster parents

When Jason was placed with Charlene, he behaved in ways that suggested to her that she was not needed. The “natural” way to respond to his behavior would have been to withdraw; fortunately, Charlene was enrolled in an intervention that helped her to see that he needed nurturing care, even though he did not behave as if he needed such care.

Through a diary study with foster parents (Stovall & Dozier, 2000; Stovall-McClough & Dozier, 2004), we found that children who were older than about 10 or 11 months when they were placed into foster care often acted as if they did not need their foster parents (e.g., turned away from foster parent when upset) or were unsoothable (e.g., continued fussing when foster parent tried to soothe them) when they were distressed. Even more concerning than children’s behaviors, however, was that foster parents tended to respond in kind to children: When children acted as if they did not need them, foster parents acted as if they were not needed and thus failed to provide nurturing care; when children acted as if foster parents could not soothe them, many foster parents responded in an irritated or angry fashion. The foster parents’ reactions concerned us because it seemed that foster children were “leading the dance” with foster parents—that although foster parents might have been nurturing under other circumstances, they were not nurturing to these young children in their care. We identified the ability of the foster parents to provide nurturing care as the first target for intervention.

Issue 2: Young children in foster care often experience dysregulation

When children experience early adversity, they are at increased risk for becoming dysregulated biologically. We have found that children in foster care often show atypical patterns of cortisol production (Dozier et al., 2006). Cortisol is a hormone that is secreted as an end product of the hypothalamus-pituitary-adrenal (HPA) axis, which is a complex set of interactions between these organs. This axis, or set of interactions, has a number of functions, including the maintenance of a diurnal pattern, or daily sleep-and-wake cycle; the diurnal pattern is characterized by high levels of cortisol produced in the morning, decreasing by midmorning to its lowest level at bedtime. The diurnal pattern is involved in helping humans to get up in the morning and go to bed at night. The opposite pattern is seen among nocturnal creatures, such as some rodents. To look at how adversity affects this diurnal pattern, we have assessed morning and bedtime levels of cortisol among children living under normative, low-risk conditions with their birth parents, children living under high-risk conditions with their birth parents, and children in foster care (Bernard, Butzin-Dozier, Rittenhouse, & Dozier, 2010). The pronounced diurnal pattern of children living in low-risk conditions is illustrated in the steep slope of children in Figure 1. These low-risk children show the steepest slope in cortisol change across the day, with the largest decrease from wake-up to bedtime values, relative to other children. Children who are currently experiencing high-risk conditions show the flattest slope, whereas children in foster care show an intermediate slope, midway between low-risk children and maltreated children living with their birth parents. Thus, children in foster care show some dysregulation of their HPA axis, although not as profoundly as shown by children living with high-risk birth parents. These findings suggest that young children in foster care need help developing the ability to regulate their physiology optimally, so we identified this capacity as the second intervention component.



Babies in foster care often don't know how to seek comfort from foster parents.

Issue 3: Foster parents' own issues sometimes interfere with their providing sensitive, nurturing care

For some adults, sensitive care comes naturally; for example, when a child is distressed, they would consider it important to soothe the child. For other adults, sensitive care does not come naturally; they may worry about spoiling the child or may find crying aversive and want to quiet the child quickly. There are several factors that probably contribute to this. Among these issues are parents' own attachment experiences; for example, if parents were typically reassured when they were distressed as children, it is more likely that they will provide nurturance to their children than if they did not typically receive nurturing care (Kovan, Chung, & Sroufe, 2009; van IJzendoorn, 1995).

For young children in foster care, it is especially important that parents are nurturing and sensitive. When placed with foster parents who are not nurturing and sensitive, young children in foster care are at increased risk for developing disorganized attachments (Dozier, Stovall, Albus, & Bates, 2001). Disorganized attachments represent a breakdown in attachment strategy and put children at increased risk for problems regulating physiology (Bernard & Dozier, in press-a; Hertsgaard, Gunnar, Farrell, Erickson, & Nachmias, 1995) and controlling behavior (Fearon, Bakermans-Kranenburg, van IJzendoorn, Lapsley, & Roisman, 2010). Given that young foster children placed with foster parents are at risk for disorganized attachment, and that disorganized attachment puts children at risk for later problems, helping foster parents override their own issues that might get in the way of providing sensitive, nurturing care was identified as the third intervention component.

An Intervention for Babies in Foster Care

We developed the ABC intervention for infants and toddlers in foster care that targets the several issues identified as critical (see Table 1). Given the evidence that many young children in foster care have difficulty forming attachments, our first intervention component helps foster parents to reinterpret children's alienating behavioral signals that tend to push foster parents away. Second, given that young children are often dysregulated behaviorally and biologically, we help foster parents follow their children's lead with delight as a way of enhancing their children's regulatory abilities. Third, we have found that foster parents' own issues sometimes get in the way of parenting in sensitive ways. We help foster parents override their usual way of responding, providing nurturing care and following their children's lead even if it does not come naturally.

The ABC intervention includes a manual and 10 interactive sessions. Each session has a specific focus, with the overall goals of helping foster parents to provide nurturance when children are distressed and follow children's lead with delight when they are not distressed. Sessions 1 and 2 help foster parents reinterpret children's behavioral signals, providing nurturance even when it is not elicited. Sessions 3, 4, and 5 help foster parents learn to follow children's lead with delight. Sessions 7 and 8 help foster parents override their own issues that can get in the way of providing nurturing, sensitive care. Sessions 6, 9, and 10 provide connections between and reinforcement of issues.

The sessions are implemented in families' homes; foster parents, their children, and others in the home, are included in sessions. In the case of Jason and his foster mother, the interventionist (or parent trainer) went to Charlene's house to meet with Jason and Charlene. In other cases, as many as 6 children and 3 adults have been included in sessions. Given the research on context-dependent learning (Bouton, Woods, Moody, Sunsay, & Garcia-Gutierrez, 2006), we consider it critical to have foster parents work on changing their parenting under conditions most similar to their usual home life. If foster parents were to come into an office or clinic with their foster child to work on skills, it would be less likely that the skills would generalize to their behaviors at home. Similarly, if foster parents were to be trained before having a foster child placed in their home, it would be unlikely that training would carry over into daily life.

Foster parents participate in a number of activities with their foster children through the intervention. Some of the activities are intentionally provocative. For example, we ask foster parents to follow their children's lead as they make pudding. During this activity, foster parents are asked to follow along with the child's cues, show delight in the child's efforts, and provide support for the child when necessary. This pushes the limits of what even highly sensitive parents can manage. Many parents tend to be overly directive or controlling because they want to complete the task or want to prevent their child from making a mess. After foster parents learn to take delight as they follow their child's lead during such a task, following the lead in everyday contexts often seems easy. Nonetheless, it is critical that parents recognize that the objective is not to engage in occasional or special activities such as making pudding with their child more often but rather to follow the child's lead and delight in their ordinary interactions.

The interventionists, or parent trainers, help parents to make changes in several ways. First and most important is providing in-the-moment feedback. Parent trainers highlight the intervention components by commenting on foster parents' interactions with their children as they observe them. For this to be effective, it is critical that parent trainers are supportive and positive and that they notice foster parents' strengths. For example, as Charlene struggled to follow Jason's lead in the pudding activity, the parent trainer commented on

such things as how Charlene lit up when Jason turned to her and the smile on Jason's face when Charlene copied Jason's behavior by banging the spoon on the side of the bowl. For example, the parent trainer noted, "I just have to stop to say what a wonderful example that was of your following Jason's lead. He held out the spoon for you to lick and you put it right in your mouth. Did you see that smile on his face?" By highlighting these examples, parent trainers help foster parents become less threatened by the parent training and accentuate their strengths. Video feedback is used in similar ways. After specific activities, parent trainers use brief video segments of the past and current sessions to highlight foster parents' strengths.

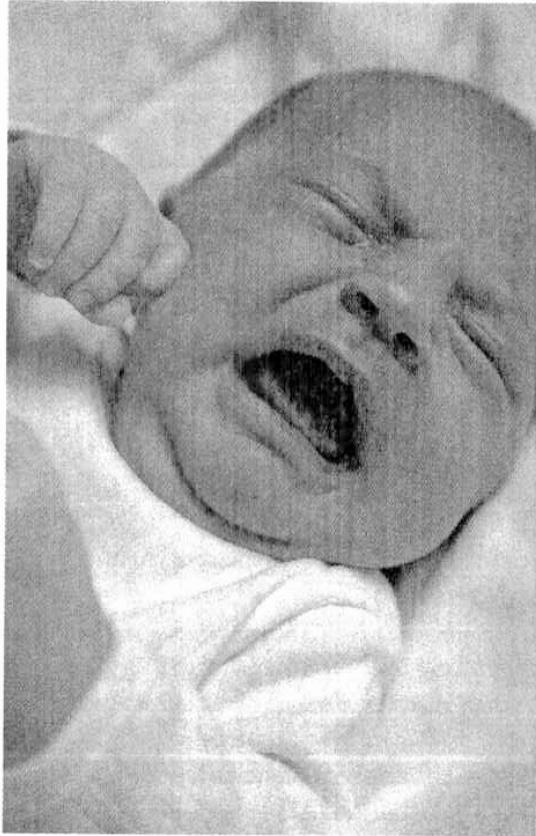


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Young children in foster care often experience dysregulation.

Evidence of Effectiveness

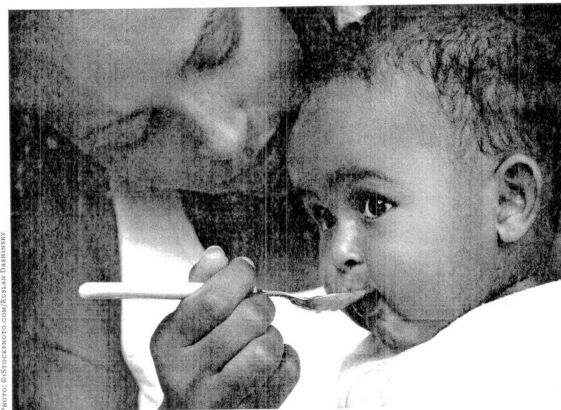
We have tested the effectiveness of the ABC intervention in randomized clinical trials with both foster parents and neglectful birth parents, and the results provide strong evidence of the intervention's effectiveness. First, we found that the intervention enhances neuroendocrine regulation among children in foster care whose foster parents received the ABC intervention, compared with children whose foster parents received a control intervention (Dozier et al., 2006; Dozier, Peloso, Lewis, Laurenceau, & Levine, 2008). The production of cortisol among children whose foster parents received the ABC intervention resembled the cortisol production of low-risk children. Furthermore, attachment security, as assessed through parental diary report, was enhanced among children whose parents received the ABC intervention relative to those who received the control intervention (Dozier et al., 2009).

The ABC intervention was adapted for birth parents whose children returned home to them after foster care placement and for birth parents monitored for neglect. Again, neuroendocrine regulation and attachment organization were enhanced among children whose parents received the ABC intervention relative to the control intervention. Assessing children's attachment through the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978), we found that fewer children whose parents received the ABC intervention showed disorganized attachment than children of parents who received the control intervention (Bernard, Dozier, Bick, & Carlson, 2010). Furthermore, children whose parents received the ABC intervention showed less cortisol reactivity after the Strange Situation than did children from the control intervention (Bernard & Dozier, 2010). The dampened cortisol reactivity shown by children in the ABC group resembled the normative pattern of children whose parents serve as effective buffers of stress (Bernard & Dozier, in press-a; Hertsgaard et al., 1995).

The ABC Intervention With Jason

As with every foster parent and child with whom we intervene, we tried to identify the central issues for Jason and Charlene early and develop a strategy for addressing them while adhering to the manualized intervention. Two issues were especially salient for them. First, Jason turned away from Charlene, suggesting through his behavior that he did not need nurturing care. Second, Charlene had difficulty following Jason's lead. We set out to change these two things while remaining open to the possibility that we would need to update our conceptualization of Jason and Charlene.

In Sessions 1 and 2, Charlene and the parent trainer discussed Jason's alienating behaviors as resulting from his history of difficult early experiences. As expected, Charlene found it easy to reinterpret his behavioral signals, providing nurturance even when he did not elicit it. She was able to gradually and gently provide nurturance without pushing or coercing Jason. In a little over a week, Jason was beginning to look to Charlene for comfort more than he had initially. Although this concept was especially intuitive for Charlene, we find that these first two sessions rarely threaten parents. The focus is primarily on the child rather than the parent and thus provides a relatively safe place to start. Focusing as we do on strengths of the parents, they often become very engaged and invested by the time we have shifted to a focus more on their behavior than on that of the child.



Foster care for infants and toddlers is fundamentally different than foster care for older children.

In Session 3, the parent trainer introduced the importance of following Jason's lead and delighting in him. As expected, Charlene found this issue more challenging than providing nurturance. Charlene explained that she was concerned that Jason was at risk for

developmental delays and that it was important that she provide a “stimulating environment for learning.” When reading a book together, Charlene asked Jason to name colors and shapes, even when he showed little interest. Rather than point out how Charlene was taking the lead, the parent trainer pointed out that Jason turned toward her when she briefly followed his lead, smiling at Jason when he took a shape out of the book and banged it against her knee. The parent trainer helped Charlene recognize how much more engaged Jason became when she followed his lead. They watched this example together many times through video feedback and contrasted it with times when Charlene was leading. Charlene gradually began to allow Jason take the lead more. Sessions 4 and 5 gave Charlene more practice in delighting in Jason while following his lead. She continued to struggle at times but made steady improvements. By Session 5, Charlene even started to catch herself leading and said, “Oh, there I go again! I’m supposed to be following, aren’t I?” Still, this remained the most challenging issue into Sessions 7 and 8.

The parent trainer went into Session 7 with two video clips: one in which Charlene had followed Jason’s lead with delight and one in which she tried to get Jason to name the animals in a book. Charlene was asked to think of whether her parents delighted in her and followed her lead when she was a child. She immediately thought of times when she felt “squashed” by her parents when she was excited about something and times more recently when she had seen her mother taking the lead with her nephews. The parent trainer talked about these experiences as representing “voices from the past” when Charlene was interacting with Jason. Her automatic response was to behave in accordance with these voices from the past. The parent trainer talked with her about overriding this automatic response, delighting in Jason even though she felt as if she should direct his activity. Charlene began to become aware that she had responded to Jason almost reflexively at times. As she became aware of how her parents’ behaviors affected her parenting behaviors, she became better able to override the voices from the past. The most important offshoot of this was that she began to follow Jason’s lead rather than teaching him, finding the new style of interactions engaging and rewarding.

Sessions 9 and 10 helped Charlene consolidate the gains she had made through the first 8 sessions. Although the sessions had specific content related to physical touch and expression of negative emotions, their primary role was to help Charlene continue to practice following Jason’s lead with delight. By Session 10, it seemed that Charlene would continue the new behaviors long after training.

System of Care Issues

We have presented evidence that the ABC intervention is effective in enhancing children’s attachment and neuroendocrine functioning. There are few evidence-based practices for this population, and we consider the intervention important. Nonetheless, we are aware that this intervention must be implemented in the context of a system of care that serves the needs of young children well. We feel that we would be remiss if we did not point out how critical such issues are.

Zeanah and colleagues (2001) have suggested the importance of thinking of foster care for infants and toddlers as fundamentally different from foster care for older children. Young children are biologically dependent on their caregivers, so they need a constant, stable, loving caregiver. Infants are unable to keep parents “in mind” for long periods of time in the parents’ absence (Kagan, 2008). That is, when parents are absent, young children can no longer hold onto their image—and cannot hold on to the hope that they will return. Whereas older children often hold on to the hope of being reunited with birth parents, infants do not

have this capacity. Thus, for infants in foster care, a committed, loving foster parent and stability of placement are critical.

Babies and young children need someone who feels a strong connection to them. We have found that foster parents who are more highly committed to their foster children show greater delight in their children behaviorally than foster parents who are not as committed (Bernard & Dozier, in press-b). Children whose parents are more committed show fewer behavior problems than other children (Lindhiem & Dozier, 2007), and children whose parents are more accepting of them show higher levels of self-esteem than other children (Ackerman & Dozier, 2005). When foster parents are more highly committed, the relationships are less likely to be disrupted than when foster parents are not highly committed (Dozier & Lindhiem, 2006). One of the characteristics of foster parents that predicts commitment is how many children a foster parent has fostered previously; the more children fostered previously, the lower the commitment (Dozier & Lindhiem, 2006). Although Jason was eventually placed with Charlene, a highly committed foster parent, his first placement with Betty, a foster parent with low likelihood of committing to his care, might have been avoided.

At times, the foster care system functions in ways that support commitment, but at other times, the foster care system may undermine foster parents' commitment to their children. Foster parents are sometimes told not to become attached or not to think of children as their own. Given how critical a committed caregiver is for infants and toddlers, we suggest that the system of foster care might need to be reconfigured with developmental needs in mind. Rather than rely on a highly professionalized and small cadre of individuals who have fostered many children, it may make sense to "cast the net more broadly." People who may not have seen themselves as foster parents might be recruited to foster one or two children in their lifetime. Instead of being told that they should not become attached to these children, perhaps foster parents should be encouraged to become attached, knowing that the children might well return to their birth parents. If ongoing contact with birth parents is encouraged, the foster parents could develop relationships that serve important functions. For example, birth parents might be able to rely on foster parents for support in times of stress, and foster parents might be more likely to become highly committed, knowing that they could remain involved with the child over time. Most important, however, children's chances of having a strongly committed caregiver will be enhanced.

Placement stability is also critical for infants and young children in foster care. Children who experience multiple foster placements are at increased risk for problematic outcomes (Lewis, Dozier, Ackerman, & Sepulveda-Kozakowski, 2007; Newton, Litrownik, & Landsverk, 2000; Rubin et al., 2004; Rubin, O'Reilly, Luan, & Localio, 2007). Given that the infant considers the person who has been caring for him or her as the parent, the experience of loss is likely just as devastating when the infant is moved from a loving, committed foster parent as when he or she is moved from a committed biological parent.

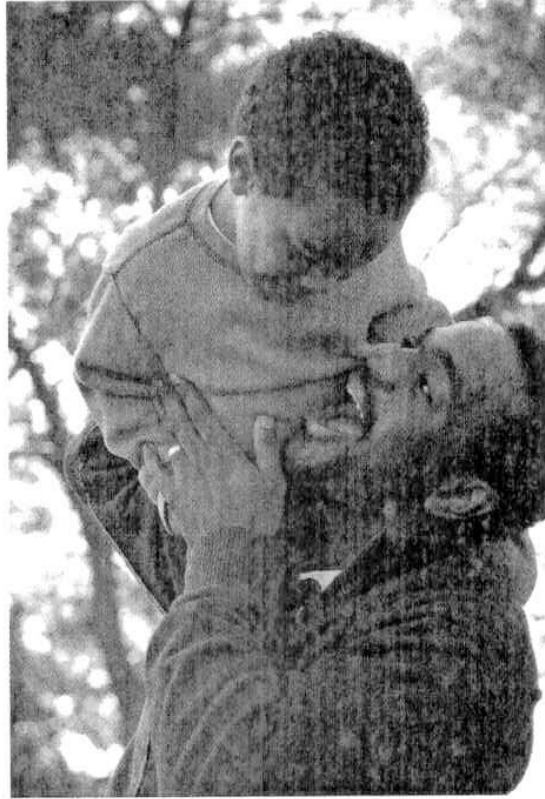


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Children whose foster parents are more committed show fewer behavior problems than other children

Decisions about the placement of young children are sometimes made with developmental needs in mind, and sometimes not. Sometimes young children are moved with little warning from one foster home to another or from a foster home to the home of a biological relative. From an infant's point of view, biological relatedness is inconsequential. Therefore, decisions to move young children from a potentially adoptive home to the home of an uninvolved relative should be made with developmental needs in mind.

Summary

The ABC intervention targets issues that have been identified as being specifically problematic for infants and toddlers in foster care. Foster parents are helped to provide nurturing care even if the child does not elicit it, and they are helped to follow children's lead with delight. Results of randomized clinical trials offer evidence of enhanced attachment quality and neuroendocrine regulation among children whose parents received the ABC intervention. Although these results are exciting and important, we suggest that it is also critical to address foster children's needs for committed parents and stable placements, which may require changes to child welfare system policies.

Learn More

Infant Caregiver Project

<http://icp.psych.mdel.edu>

The Infant Caregiver Project at the University of Delaware is a developmental psychology laboratory directed by Mary Dozier. The project's research concerns the development of children who have experienced early adversity and the effectiveness of parent training programs for improving developmental outcomes among these children.

Biographies

Mary Dozier, PhD, is the Amy E. DuPont Chair of Child Development in the Department of Psychology at the University of Delaware. She studies the development of infants and young children who have experienced maltreatment and disruptions in their relationships with caregivers.

Johanna Bick, MA, is a doctoral candidate in the Department of Psychology at the University of Delaware and is currently completing her clinical internship. She is interested in the biological and behavioral correlates of bond formation among foster parents and foster children.

Kristin Bernard, MA, is a doctoral candidate in the Department of Psychology at the University of Delaware and is a research assistant in the Infant Caregiver Project lab. She is interested in the effects of early adversity on children's development of behavioral and neurobiological regulation.

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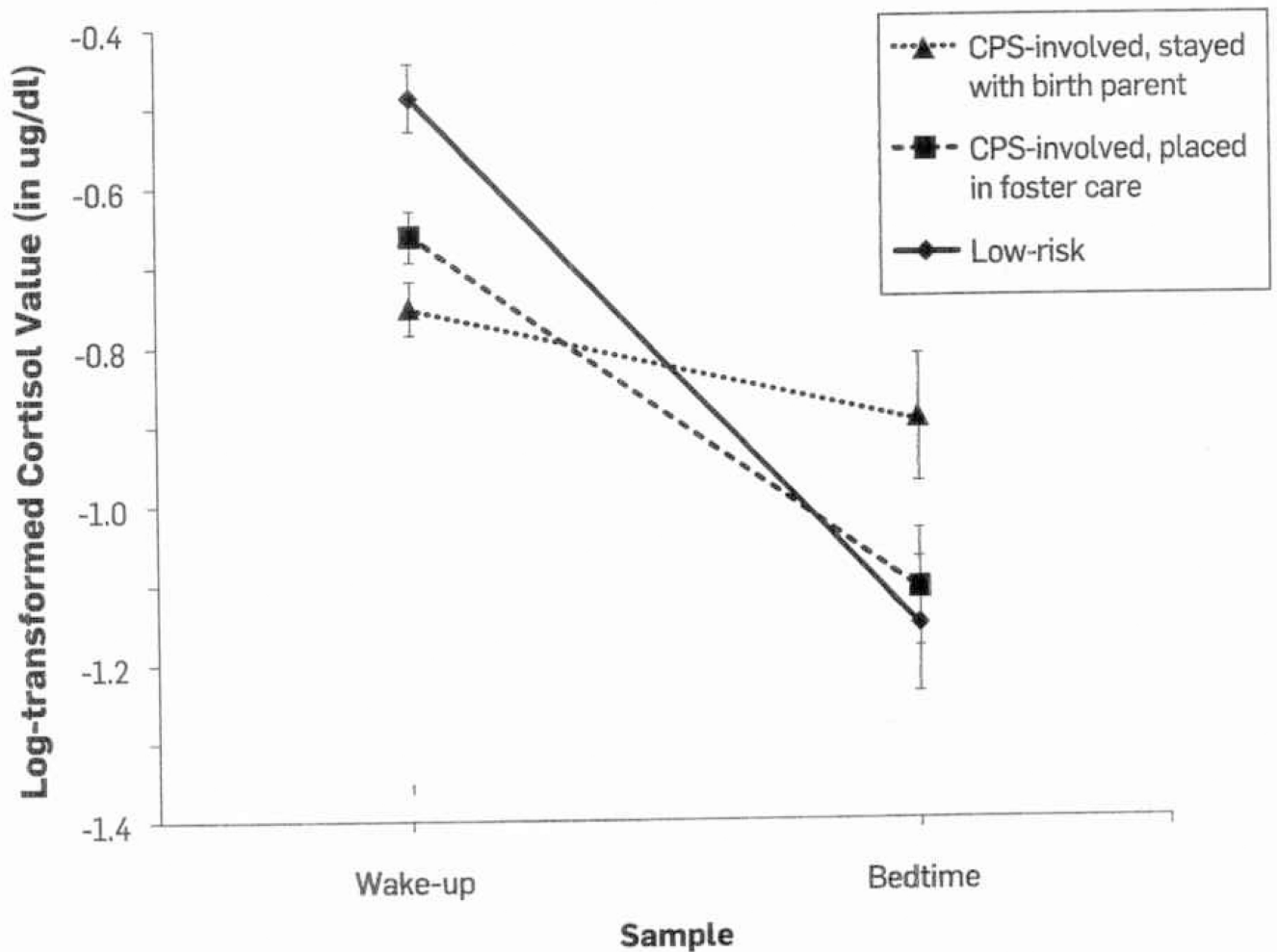


Figure 1. Comparison of Diurnal Cortisol Production

Comparison of diurnal cortisol production among low-risk children living with birth parents, children who continued living with high-risk birth parents after involvement of Child Protective Services (CPS), and children living in foster care after involvement of CPS. Adapted with permission from “Cortisol Production Patterns in Young Children Living With Birth Parents vs. Children Placed in Foster Care Following Involvement of Child Protective Services,” by K. Bernard, Z. Butzin-Dozier, J. Rittenhouse, & M. Dozier, 2010, *Archives of Pediatrics and Adolescent Medicine*, 164 (5), 438–443. Copyright © 2010 American Medical Association. All rights reserved.

Table 1

Attachment and Biobehavioral Catch-Up Intervention Targets

Problematic issue	Target
Children push caregivers away.	Foster parents provide nurturing care even though children do not elicit it.
Children are dysregulated behaviorally and biologically.	Foster parents provide a responsive interpersonal world by following children's lead with delight.
Caregivers' own issues interfere with providing sensitive care.	Foster parents provide sensitive care even though it doesn't come naturally to them.