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Los Angeles

Breaking the Cycle of Abuse and Neglect: Attachment in the Context of a Therapeutic Childcare Program for Maltreated Children

A dissertation submitted in partial satisfaction of the

requirements for the degree of Doctor of Philosophy

in Education

by

Cristal Lynn Byrne

2016

ABSTRACT OF THE DISSERTATION

Breaking the Cycle of Abuse and Neglect: Attachment in the Context of a Therapeutic Childcare Program for Maltreated Children

by

Cristal Lynn Byrne

Doctor of Philosophy in Education

University of California, Los Angeles, 2016

Professor Carollee Howes, Co-Chair

Professor Rashmita S. Mistry, Co-Chair

Infants and toddlers the youngest and most vulnerable members of our society are more likely to experience abuse and neglect than children from any other age group. Among myriad other negative developmental outcomes, the experience of maltreatment places children at an increased risk of developing an internal working model of relationships that reflects an insecure, or a disordered attachment relationship pattern. It has been well established that maltreated children are able to develop secure attachment relationships with alternative caregivers (e.g., foster parents, family-members) and that preschool-aged maltreated children are able to develop secure attachment relationships with their childcare teachers. It has also been well established that childcare environments characterized by high levels of caregiver sensitivity, involvement, and positive emotional climate as well as low teacher-child ratios promote the development of secure attachment relationships between teachers and children. However, given the lack of early

intervention in the form of therapeutic childcare services for our youngest survivors of maltreatment, the development of secure attachment relationships between maltreated infants and toddlers and their childcare teachers has yet to be investigated. Therefore, this case study of a therapeutic childcare agency for maltreated children documents attachment relationship development between maltreated infants and toddlers and their primary childcare teachers over time and describes the therapeutic childcare context in terms of structural and process quality as well as supports available to teachers. Findings support prior research that suggests that maltreated infants and toddlers, like their non-maltreated counterparts, can develop attachment relationships with their childcare teachers in the context of a childcare program characterized by teacher sensitivity, involvement, and low teacher-child ratios. Distinct trends in teacher-child attachment behavior as well as relationship patterns emerged over time. Further research is required to determine if these trends and patterns can be replicated with a larger and more diverse sample.

The dissertation of Cristal Lynn Byrne is approved.

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DEDICATION

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CHAPTER 1. INTRODUCTION AND LITERATURE REVIEW

Each year in the United States six million children are involved in referrals to Child Protective Services (CPS) and it is believed that many more cases of child abuse and neglect go unreported. Infants and toddlers – the youngest and most vulnerable members of our society – are more likely to experience abuse and neglect than children from any other age group. According to Child Trends Data Bank (2013), approximately 230,000 infants and toddlers are victims of substantiated abuse and/or neglect per year. Unfortunately, the developmental trajectory of children exposed to maltreatment is often negatively impacted. Negative outcomes for children exposed to maltreatment often include academic, social, and emotional difficulties that continue well beyond the formative years of childhood, their effects often cascading in to adulthood as well (Petersen, Joseph, & Feit, 2014). For children exposed to maltreatment the process of building a positive relationship with the primary caregiver is profoundly disrupted. While both maltreated and non-maltreated children have been found to develop insecure attachment relationships with their primary caregiver, children who have experienced abuse and/or neglect are more likely to develop insecure attachment relationships than their non-maltreated counterparts (Carlson, Cicchetti, Barnett, & Braunwald, 1989; Egeland & Sroufe, 1981). Unlike their non-maltreated counterparts, only children who have experienced maltreatment are at risk of developing a disordered attachment relationship with their primary caregiver.

However, in recent years it has been well documented that exposure to social support in the form of positive relationships with at least one adult in early childhood has the potential to disrupt an all too often bleak developmental trajectory (Masten, 2001; Masten, Best, and Garmezy, 1990). One of the ways to help improve the likelihood that children exposed to

maltreatment can begin on a more positive developmental trajectory is to ensure that they are given the opportunity to develop a secure attachment relationship with alternative caregivers early in life. The development of a healthy, secure attachment relationship early in life has been found to mitigate the effects of early life adversity including maltreatment and is the cornerstone of a positive developmental trajectory. Fortunately, the development of a secure attachment relationship is a dynamic developmental process that depends in large part on the people with whom and environments in which the relationship is formed. This means that children, despite the development of insecure or disordered attachment relationships with parents, have the capacity to form secure relationships with other adults, or alternative attachment figures in environments that support and foster their growth.

In the United States, since it is not uncommon for families to use childcare services, one of the more common non-parental attachment relationships develops between children and their childcare teachers. It has been well documented that children develop attachment relationships with their childcare teachers and that high quality childcare environments characterized by teacher sensitivity, involvement, and positive emotional climate as well as low teacher-child ratios help to ensure the development of secure attachment relationships (Howes, Galinsky, & Kontos, 1998; Howes & Smith, 1995; NICHD Early Childcare Research Network, 1996; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2000). Therefore, the current study examined the formation of attachment relationships between maltreated infants and toddlers and their primary childcare teachers in the context of a therapeutic childcare environment. In particular, teacher-child dyads were observed over the course of a three-month-period and were examined using individual case study analysis to document how the attachment relationship between each teacher-child dyad developed over time. Cross-case analysis was used to explore

emerging trends and patterns across dyads. In addition, the current study examined the context in which these relationships developed and assessed the structural and process quality of the therapeutic childcare environment.

Definition and Types of Child Maltreatment

The Child Abuse Prevention and Treatment Act (CAPTA) was enacted in 1974 to prevent, assess, identify, and treat cases of child maltreatment. According to Section 3 of CAPTA child maltreatment is defined at the federal level as,

> At a minimum, any recent act or set of acts or failure to act on the part of a parent, or caretaker, which results in death, serious physical or emotional harm, sexual abuse or exploitation, or an act or failure to act, which presents an imminent risk of serious harm.

In addition, the 2010 National Incidence Study (NIS; Sedlak et al., 2010a) classified incidents of child maltreatment according to six primary categories including physical, emotional, and sexual abuse as well as educational, emotional, and physical neglect.

Defining features of the three types of abuse (i.e., physical, emotional and sexual) follow. The definition of physical abuse put forth by the NIS included physical harm to a child resulting from shaking, throwing, or purposefully dropping; hitting with a hand or with an object; pushing, grabbing, dragging, or pulling; and punching and kicking. Emotional abuse was defined as including close confinement (tying/binding), verbal assaults, threats of sexual abuse or other maltreatment; terrorizing the child; and administering unprescribed substances. Sexual abuse of a child was defined as intrusion sex (with or without force); prostitution or pornography; molestation; exposure/voyeurism; failure to supervise a child's voluntary sexual activity; and attempted/threatened sexual abuse.

Defining features of the three types of neglect (i.e., educational, emotional, and physical) follow. In accordance with the NIS definition educational neglect is defined as permitted chronic truancy; failure to register or enroll; and refusal to allow or provide needed attention to a diagnosed educational need. Emotional neglect was defined as inadequate nurturance/affection; domestic violence; knowingly permitting drug/alcohol abuse or other maladaptive behavior; refusal to allow or provide needed care for a diagnosed emotional or behavioral impairment; over protectiveness; inadequate structure; and inappropriately advanced expectations. Physical neglect was defined as refusal to allow or provide needed care for a diagnosed condition; unwarranted delay in seeking or failure to seek needed care; refusal of custody/abandonment; illegal transfer of custody; and inadequate supervision, nutrition, personal hygiene, clothing, or shelter.

Psychosocial and Environmental Risk Factors Linked to Child Maltreatment

The types of psychosocial and environmental stressors that have been empirically linked to child maltreatment are numerous and varied. However, most empirical studies investigating the incidence of child maltreatment are unable to make causal links to psychosocial and environmental risk factors. This is due to the dearth of longitudinal and experimental studies investigating the conditions under which child maltreatment is most likely to occur. Given the nature of this topic experimental studies, or randomly assigning children to conditions of maltreatment or control, are not feasible or ethical. However, natural experiments, or studies investigating the developmental impact of severe deprivation that occur in the natural world, such as the in Romanian orphanages from which the Bucharest Early Intervention Project drew their study sample, have the ability to provide invaluable insights in to the effects of extreme maltreatment (Nelson, 2010). Animal studies have also been helpful in furthering our

understanding and providing causal evidence for the impact of rearing-conditions of deprivation that closely mirror those of human abuse and neglect (Sanchez, 2006). Nonetheless a mounting body of evidence suggests a number of risk factors have been shown in cross-sectional studies to be associated with child maltreatment. While unable to make a causal link, correlation studies are the first step in helping us to better understand the phenomenon and provide a launching point for the design of future longitudinal studies. Furthermore, taken together, the results from correlation studies, natural experiments, and animal studies provide a starting point for practice and policy-based interventions aimed at reducing incidents of child maltreatment.

The psychosocial and environmental risk factors for which a causal link may exist have been broadly classified in to the following categories: parental, child, family, and contextual risk factors (Peterson, Joseph, & Feit, 2014). Parent-level risk factors implicated in conditions increasing the likelihood of child maltreatment include early childbearing, maternal depression, and parental substance abuse. Findings are mixed as to the extent to which parental history of maltreatment correlates with maltreatment of their own children Findings are also mixed with regard to child-level risk factors, including physical disability as well as psychological and emotional impairments. Family-level risk factors shown to be associated with child maltreatment include low-quality parenting skills, domestic violence, and lack of adequate social support. Results from studies investigating contextual risk factors including household income (poverty) as well as neighborhood characteristics (child-adult household ratio, high concentration of single-parent households) believed to be correlated with higher rates of child maltreatment are mixed.

Infancy: Sensitive Period for Attachment Development

Over the course of the past twenty years, the burgeoning field of developmental

neuroscience has enabled researchers to explore and more fully understand the impact of developmental timing on behavioral outcomes. In their review of the literature on timing and quality of early experiences, Fox, Levitt, and Nelson (2010) suggest that behavioral outcomes are a result of a gene by environment interaction that first begins to take shape in the developing brain. Very simply stated, the environment first begins to exert its influence on behavioral outcomes by interacting with the brain's genetically pre-determined neural circuitry or "blueprint" quite nearly from the moment of conception. Then, since the neural circuitry in the brain develops over the course of our lifetime, environmental input is of crucial importance in helping to determine the brain's consequent structure (e.g., neural circuitry) and function (e.g., cognition).

Furthermore, the timing of environmental input has been found to be a crucial piece of the equation. That is, there is evidence to show that the environmental input that is experienced during a "sensitive" period of development plays a role in determining how that system is wired. According to Knudsen (2004, p. 1412) the term sensitive period "applies whenever the effects of experience on the brain are unusually strong during a limited period in development." Since the brain is made up of a network of interconnected systems, the wiring of neural circuitry in one region of the brain has the potential to impact the wiring of other regions. Therefore, the wiring of one system not only impacts the structure and function of that particular brain region, but potentially brain regions that develop thereafter resulting in an altered behavioral trajectory. That is, a cascade effect is observed between regions of the brain whereby the neural wiring of one can impact another and ultimately re-route a developmental trajectory (Masten & Cicchetti, 2010). This is not to say that neural circuitry is thereafter resistant to change, or that once a path is started down there is no turning back. In fact, there is evidence for neural plasticity throughout

the life course, such that environmental input continues to help guide the developmental trajectory and consequent behavioral outcomes. The developmental outcome of a child exposed to maltreatment involves a culmination of experiences – both negative and positive – over time. Therefore, exposure to maltreatment in childhood does not necessarily have a deterministic effect on developmental outcomes.

Infancy is one of two developmental time periods (the other being adolescence) associated with rapid brain development characterized both by pruning and organization of neurons that eventually lead to the development of neural pathways. Infancy is also when the attachment relationship between the primary caregiver and the child first begins to develop. In animal models (e.g., studies involving nonhuman primates, or rats), the organization of neural circuitry in the brain and attachment organization represent a symbiotic relationship, such that the attachment bond is thought to play a role in the development of the stress-response system (i.e., HPA axis, amygdala, cerebellum, locus coeruleus) and ultimately informs the self-regulation system (Moriceau & Sullivan, 2005). As Moriceau and Sullivan (2005) suggest, "the neonatal brain is not an immature version of the adult brain, but is uniquely designed to optimize attachment to the caregiver." (p. 230) That is, our neurobiology is wired for the development of attachment in infancy. Infancy, then, is considered to be a "sensitive" period for the development of attachment. Thus, the relationships a child develops during this formative developmental time period are foundational in shaping the attachment system, or internal working model of relationships. Thereafter, the more secure attachment relationship experiences a child has over time, the better. Repeated exposure to secure attachment relationships strengthens the neural pathways that connect relationship partners as consistent sources of calm, comfort, and care.

Furthermore, it has been shown that the earlier in life these secondary attachment

relationships are formed, the more likely they are to develop in a secure manner. In their study examining the development of the attachment relationship between infants and their foster care parents, Stovall and Dozier (2000) noted the emergence of attachment behavior at around two months after placement and found that infants who had the opportunity to develop a secondary attachment relationship prior to twelve-months-of-age were more likely to be classified as securely attached. What's more, the sensitive and responsive care giving that is associated with a secure attachment organization has been shown to buffer the negative impact of childhood maltreatment and other forms of early life adversity on neurobiological development (Gunnar, 1998).

Parent-Child Attachment Relationship Development

The parent-child attachment relationship develops as a result of evolutionary necessity and occurs as long as at least one consistent caregiver is present. Unlike most other mammals, human infants have an extended period of dependence on caretakers in order to ensure their survival. It remains this way throughout the first few years of life, gradually declining over time (Cassidy, 2008). All humans growing up in species-typical rearing environment will develop an attachment relationship with their primary caregiver(s) out of necessity. However, the security and organization of the attachment relationship that forms will depend on the quality and consistency of the care giving a child receives. It has been shown that the security and organization of the attachment relationship that develops between a child and his/her primary attachment figure is dependent in large part upon the extent to which a child consistently receives sensitive and responsive caretaking (De Wolff & van IJzendoorn, 1997; Isabella, 1993).

Secure Attachment Development

The development of a secure attachment relationship is predicated on the presence of a sensitive and responsive caregiver who is able to both read and respond appropriately to the child's cues. Children who are provided with consistent, sensitive, and appropriate responses are able to explore their environment with ease using the attachment figure as a "secure base" (Bowlby, 1983). This "secure base" is the place from which excursions away from the caregiver and into the environment can be launched as well as a place to which the infant can retreat if she is exhausted, overwhelmed, or afraid. As the secure attachment relationship continues to evolve, the child begins to trust this process and is able to venture farther and farther away from his or her caregiver for longer stretches of time. Support for the universality of the "secure base" phenomenon was recently provided in a cross-cultural study of attachment relationships (Posada et al., 2013). Simultaneously, the infant is developing an "internal working model" for relationships in general (Bowlby, 1983). It is with the trust established within the primary attachment relationship that in part informs the child's trust in and expectations of others. Thus, the attachment relationships a child develops with attachment figures early in life has implications for the security and organization of attachment relationships in adulthood with romantic partners (Hazan & Shaver, 1987) as well as future offspring (Bretherton, 1990). Consistent deprivation, or inconsistent availability of sensitive and responsive caretaking can result in the development of an insecure primary attachment relationship, while maltreatment frequently results in the development of a disordered primary attachment relationship.

Insecure and Disordered Attachment Relationship Development

Pioneers in the field of attachment set out to empirically test the tenets of Bowlby's

attachment theory. Using the "strange situation" procedure Mary Ainsworth (1970) identified three forms of attachment organization classified as secure, insecure-ambivalent, and insecure avoidant. Later, Main and Soloman (1986) identified a constellation of attachment behaviors classified as disorganized. Insecure-ambivalent attachment organization has been shown to be common in children who experience the inconsistent care giving that is often associated with parental mental illness or substance abuse (Cassidy & Berlin, 1994: Cicchetti, Rogosch, & Toth, 1998; Radke-Yarrow, Cummings, Kuczynski, & Chapman, 1985; van IJzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992). Avoidant and disorganized attachment is commonly seen among children who have experienced abuse or neglect (Carlson, Cicchetti, Barnett, & Braunwald, 1989; Egeland & Sroufe, 1981; Lyons-Ruth, Connell, Zoll, & Stahl, 1987). Roughly two-thirds of attachment relationships between maltreated children and their primary caretakers are insecure (Morton & Brown, 1998). Carlson and colleagues (1989) found that 82% of the maltreated infants in their sample showed disorganized/disoriented attachment organizations. Typically, in the presence of parental mental illness, substance abuse, and maltreatment the care provided by the primary attachment figure is not consistently characterized by the sensitive and responsive care giving that is required for a child to form a secure attachment. This often results in insecure and disordered parent-child attachment relationships.

Childcare Teachers as Alternative Attachment Figures

While parental mental illness, substance abuse, and maltreatment often compromise the maltreated child's ability to develop a secure attachment relationship with her primary caregiver it does not mean that maltreated children are incapable of forming secure attachment relationships all together. Despite the absence of sensitive and responsive care giving by the

primary attachment figure, the responsive nature of the attachment system provides the opportunity for a secure attachment to develop with a secondary, or alternative attachment figure. What's more, these alternative attachment relationships may act as a protective factor, buffering children from negative developmental outcomes. Maltreated children have been shown to develop attachment relationships with alternative caregivers including relatives (Lamb, Gaensbauer, et al., 1985; Rodnig, Beckwith, & Howard, 1989), foster parents (Stovall & Dozier, 2000), and childcare teachers (Howes &Ritchie, 1998; 1999; Howes & Segal, 1993). The development of attachment relationships between children and their childcare teachers has been extensively documented in a variety of childcare settings including both center and home-based care (for meta-analysis see Ahnert, Pinquart, & Lamb, 2006). Same as with primary attachment figures, consistently sensitive and responsive care giving in the childcare context predicts the development of secure attachment between children and their teachers (Booth, Kelly, Spieker, & Zuckerman, 2010; Howes & Hamiliton, 1992; Howes & Smith, 1995). Some of the characteristics of a childcare environment that promote the development of a secure attachment relationship include caregiver sensitivity (Goosens & van IJzendoorn, 1990; Howes, Galinsky, & Kontos, 1998) and involvement (Howes & Smith, 1995), as well as positive emotional climate in the classroom and low teacher-child ratios (NICHD Early Childcare Research Network, 1996; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2000).

In the childcare context, indicators of both structural and process quality have been shown to predict secure teacher-child attachment relationships (NICHD Child Care Research Network, 2002; Scarr, Eisenberg, & Deater-Deckard, 1994). Structural quality refers to the "who", "what", and "where" characteristics of a childcare facility and is measured by teacher-child ratios, group size, licensing standards, physical space, as well as teacher education and

training. Process quality, on the other hand, refers to the "how" characteristics of a childcare facility and is measured through childcare teacher-child relationship quality/interactions and exposure to materials and activities in the classroom. Generally, structural quality indicators play a supportive role in determining overall childcare quality. For instance, the structural quality indicators that have been found to be associated with process qualities known to be predictive of secure teacher-child attachment relationships include ratio and group size, as well as teacher training and education (Arnett, 1989; NICHD Early Childcare Research Network, 1996; Phillips, et al., 2000; Phillipsen, Burchinal, Howes, & Cryer, 1997). Thus, childcare environments characterized by structural and process quality indicators such as low teacher-child ratios, higher levels of teacher education, adequate wages, sensitive and responsive teachers, and positive emotional classroom climate have been shown to promote the development of secure attachment relationships between teachers and the children in their care.

The Current Study

The current study used a multiple-case, embedded case-study design to examine the formation of the attachment relationship between maltreated infants and toddlers and their primary childcare teachers in the context of a therapeutic childcare environment. The unit of analysis, or "case" was the teacher-child dyad. Each of the teacher-child cases were embedded within both the classroom environment as well as within the context of the therapeutic childcare agency. Therefore, in addition to the teacher-child attachment relationship, structural, and process quality were examined as well as supports provided to teachers. See Figure 1.

In defining the case study as an empirical form of inquiry, Yin (2009) explains that case study research is used to understand "complex social phenomena" by investigating a

"contemporary phenomenon (the "case") in depth and within its real world context, especially when the boundaries between the phenomenon and context may not be clearly evident." (pg 16). Therefore, since the current study intends to examine how the attachment relationship between childcare teachers and maltreated children – a complex social phenomena – develops over time within the therapeutic childcare context, case study analysis has been chosen as the preferred method of analysis.

Research Questions. The following questions guided the current study:

1. To what extent are maltreated infants and toddlers attending a therapeutic childcare center able to construct a secure attachment relationship with their primary childcare teacher?

1a. How do maltreated children begin to organize their attachment behaviors around their primary childcare teacher?

1b. How is the attachment relationship between primary childcare teacher and children organized at 3- and 6-months after start of services as measured by the Attachment Q-Sort?

2. What does childcare quality look like in therapeutic childcare environment?

2a. What is the structural quality (i.e., teacher-child ratio, group size, teacher education and training) of the child care offered to infants and toddlers at this center?

2b. What is the process quality (i.e., teacher-child interactions, exposure to materials and activities) of child care offered to infants and toddlers at this center?

3. What types of supports (compensation, benefits, staff development/training) does this therapeutic childcare center offer to teachers to foster secure attachment relationships

CHAPTER 2. STUDY METHODOLOGY

Data Source

Participants for the current study were recruited from a therapeutic childcare agency located in a large metropolitan city on the West coast. The mission of the therapeutic childcare

agency is to break the cycle of abuse and neglect through early intervention with maltreated, or otherwise at-risk children between one month and five years of age. Agency-wide the children enrolled for childcare services included roughly equal number of boys (58%) and girls and are racially diverse (25% European-American/White, 24% African-American/Black, 4% Native American, 2% Asian; 35% multi-racial; 8% other). Twenty-two-percent of children across all categories identify ethnically as Hispanic.

The families of the children enrolled for childcare services came to this agency's attention through referrals from public health, social services, or child welfare professionals as a result of substantiated reports of maltreatment of a child previously or currently in their care. The vast majority of children in attendance at this therapeutic childcare agency came from low-income families (97%) and many of the parents struggle with mental health (25%) and/or substance abuse (40%) issues. Additionally, roughly 40% of children enrolled for services were in out-of-home care (25% relative care, 15% non-relative care). The remaining 60% lived at home with one or both biological parents.

Participants

The study sample included 11 children and 13 teachers across five infant/toddler childcare classrooms within two therapeutic childcare sites. Children who participated in the study were new intakes and enrolled for childcare services on or after Sept 1, 2014 and before November 15th 2014. The average age of children who participated in the study was 15.7 months (SD = 4.27 months; range = 10 – 22 months). The sample of children included slightly more boys (64%) than girls and was racially diverse (64% Bi/multi-racial, 18% European American/White, 9% African American/Black, and 9% Asian). Approximately half (54%) of the

children attended some form of formal childcare (e.g., center-based, home-based) prior to being enrolled at the present therapeutic childcare agency. See Table 1.

Teachers who participated in the study were employed in classrooms serving infants and toddlers between September and December 2014. The average age of teachers was 28.3 years (SD = 9.22; range = 22 – 55 years). The sample of teachers included more females (92%) than males. Seventy-five percent of teachers (n=9) identified racially as European-American/White. The remaining 25% (n=3) of teachers identified as African American/Black, Asian, and Bi/multi-racial. See Table 1.

Procedures

Participant Recruitment. Participants were recruited from two of the agency's three therapeutic childcare sites. One site is located in an urban community and the other site is located in an urban-suburban community. Teachers were recruited at an information session detailing the parameters of the study as well as requirements of participation. Teachers were given the opportunity to ask questions at this time and were given consent forms to sign and return should they agree to participate in the study. All eligible teachers consented to participate in the study; however, only 72% (n=13) worked in classrooms to which participating children were assigned[1]. In addition, all parents/legal guardians of children between 10 and 24 months of age were recruited and informed about the parameters of their child's participation in the study. All eligible families provided consent for their child to participate. Incentives ($10 Target gift card) were given to teachers who agreed and families who allowed their child to participate in the

[1] Teacher eligibility for the study was based on working in a classroom serving infants and toddlers, while teacher participation was based on the classrooms in which participating children were assigned and not all infant/toddler classrooms were assigned participating children.

study. Child participants were given two developmentally appropriate books, an approximately $10 value. IRB approval was received for these procedures.

Data Collection. All data were collected over the course of a nine-month period from September 2014 to May 2015. The primary data collection procedures included structured observation, survey administration, and document review. Structured observation was used to collect data on teacher-child attachment behaviors and attachment security as well as childcare structural and process quality. Survey administration was used to collect information on teacher education and training as well as supports available to teachers through the childcare agency. Document review was used to collect child demographic information (i.e., gender, age, race/ethnicity), family history of psychosocial and environmental stressors, parent-child relationship classifications at enrollment as well as additional documentation for teacher support (i.e., teacher pay scale and training schedule for 2014).

The development of the teacher-child attachment relationship was assessed longitudinally through structured observation of teacher and child attachment behaviors spanning the three months between September and November. Each of the attachment behavior observations focused on teacher-child interactions during nine social exchanges broadly classified into the following five categories: arrival to/ departure from the classroom, routine care-giving, play, child distress, and child reaction to stranger. At the end of the three-month attachment behavior observation period (December 2014), the Attachment Q-Sort (AQS) was administered to assess the attachment security of each primary teacher-child attachment relationship. Six teacher-child dyads were assessed using the AQS at Time 1[2]. Each of the AQS observations lasted approximately two hours.

[2] For the purpose of the current study children had to be enrolled for at least eight weeks prior to AQS administration. Only six of the eleven child participants met this criterion at T1.

In December, three months after the start of data collection, data on childcare quality (process and structural) were collected using standardized observation measures as well as survey administration with teachers. Process quality data were collected at one time point in December 2014 using two standardized, observation-based measures designed to assess teacher-child interactions, and child exposure to activities and materials. Teacher-child interactions were assessed using the Infant or Toddler Classroom Assessment Scoring System (CLASS; La Paro, Hamre, & Pianta, 2012), while exposure to activities and materials was assessed using the Infant/Toddler Environment Rating Scale (ITERS; Harms, Cryer, & Clifford). Structural quality was assessed through teacher-child ratios and classroom group size as well as teacher education and training. Information on teacher-child ratio and group size was collected at one time point as part of the CLASS administration. Information on teacher education, training, and work experience as well as basic demographic data was collected at one time point in December 2014 through survey administration with teachers. Agency documents pertaining to basic demographic data as well as family history of environmental and psychosocial stressors and parent-child relationship classifications were also reviewed at the end of the three-month data collection period.

In May, data on agency supports available to teachers were collected through survey administration with a member of the agency's administrative staff as well as through review of agency documents. Reviewed documents relevant to teacher supports included the teacher pay scale as well as the bimonthly training day schedule for 2014 (the year during which structured observational data were collected). The AQS was administered a second time in May, approximately six months after Time 1 administration.

Measures

The following key data sources and measures were used to address the research questions outlined above.

Child and Family Characteristics. At enrollment parents were asked to provide basic demographic information (e.g., gender, age, race/ethnicity) for their child. In addition, to better understand the relational as well as the psychosocial and environmental context in which participants were enrolled for therapeutic childcare services, documentation regarding DC: 0 – 3R Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood Revised Axis II (Relationship Quality Classification) and Axis IV (Psychosocial Stressors) diagnoses were reviewed.

At intake each parent-child relationship was assessed through a clinical interview with the parent (parent report of family and child history including CPS involvement) as well as a clinical observation of parent-child interactions and child behaviors inside the childcare setting[3]. Based on clinical interviews and observations parent-child dyads were given a relationship classification based on the DC:0 – 3 Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood. The classification system uses two primary components to classify the parent-child relationship: The Parent-Infant Relationship Global Assessment Scale (PIR-GAS), and the Relationship Problems Checklist (RPCL). The PIR-GAS is a score from 0 – 100 that assess the intensity, frequency, and duration of parent-child relationship difficulties. PIR-GAS scores ranging from 81 – 100 are classified as an adapted relationship, scores ranging from 41 – 80 are classified as having features of a disordered relationship, and scores ranging from 0 – 40 are considered to be consistent with a

[3] Two participants were placed in out-of-home with relatives. In these cases the legal guardian completed the clinical interview based on known family and child history. However, the relationship classification was based on the biological parent-child dyad.

disordered relationship. The RPCL provides descriptive features of seven overall relationship qualities including over-involved, under-involved, anxious/tense, angry/hostile, verbally abusive, physically abusive, and sexually abusive.

At intake parents were asked to complete a psychosocial and environmental stressors checklist. The checklist included 70 items and required parents to indicate if, during the child's lifetime, the family had experienced or been exposed to each one of the psychosocial/ environmental stressors listed by responding either yes, or no. Items on the checklist are arranged into ten broad categories including challenges to a child's primary support group (e.g., change in primary caregiver, birth of a sibling, parental substance abuse), challenges in the social environment (e.g., discrimination, single parenting), educational/childcare challenges (e.g., multiple changes in childcare provider, parent without high school diploma), housing challenges (e.g., homelessness, unsafe neighborhood), economic challenges (e.g., food insecurity, poverty), occupational challenges (e.g., dangerous or stressful parental employment, military deployment), heath-care access challenges (e.g., lack of adequate health insurance), health of child (e.g., hospitalization of child), legal/criminal justice challenges (e.g., child protective services involvement, parental arrest), and other (e.g., abduction, child witness to violence, war). As part of study participation parents were also asked to complete a brief, three-item (two open-ended questions and one multiple-choice question) survey about their child's childcare history.

Teacher characteristics. All participating teachers completed a brief, ten-item questionnaire that included both open- and close-ended questions regarding basic demographic information (e.g., gender, age, race/ethnicity) as well as questions pertaining to level of education, continuing ECCE education and training, and years of experience as a childcare teacher.

Attachment behaviors. Children's attachment behaviors were assessed over a three-month period of time using an observation-based protocol adapted from earlier studies examining adult-child attachment formation (Howes & Oldham, 2001; Howes & Shivers, 2006). The structured observation tool is comprised of 23 attachment behaviors along the side and nine attachment-behavior eliciting social exchanges across the top to create a matrix of cells, or grid-like structure, each cell corresponding to a different combination of attachment behavior and social exchange. When a child was observed to engage in an interaction with his/her primary teacher a tally was placed in the cell that corresponded with the attachment behavior that the child exhibited (e.g., tracking) and the social exchange (e.g., arrival) in which the attachment behavior occurred. Multiple occurrences of the same behavior were indicated by separate tally marks. Using this protocol the nine attachment-eliciting scenarios were sorted into the following five broad categories of social exchange: arrival to/departure from the classroom, routine care-giving activities (i.e, diaper, feed, dress, nap), play, child distress, and child reaction to stranger.

The 23 attachment behaviors included in this protocol can be broadly categorized as representing secure, insecure, and disordered/disorganized attachment patterns. The following seven items were recorded as secure (items 1 – 5) and insecure (items 6 & 7) child attachment behaviors: 1. *Tracks* the teacher (e.g., physically approaches or visually follows); 2. *Maintains proximity* to teacher; 3. *Positively initiates* to the teacher (e.g., signals to be picked up); 4. *Positively responds* to teacher (e.g., smiles or laughs in response to teacher behavior); 5. *Cries or fusses* while looking at teacher; 6. *Ignores* teacher's instructions or verbal requests; and 7. *Avoids* teacher (e.g., looks or moves away when teacher attempts to engage).

In addition to recording secure and insecure attachment behaviors, the structured observation protocol was adapted to include behaviors associated with disordered attachment

patterns (Smyke & Zeanah, 1999; Zilberstein, 2006). The disordered attachment behaviors used in the present study have been categorized as nonattachment (items 8 – 12) as well as secure base distortions (items 13 – 23). Nonattachment behaviors (items 8 – 12) include 8. *Social inhibition, 9. Emotional withdrawal*, 10. *Indiscriminate behavior* (e.g., sits on the lap of unfamiliar adult), 11. *Dysregulation*, and 12. *Fails to seek help/comfort/cooperation* when needed. Three distinct patterns of secure base distortions, which include self-endangerment, clinging, and vigilance were also coded. A secure base distortion with features of clinging/inhibition (13 & 14) include 13. *Clinging* to caretaker and 14. *Lack of exploration* of the environment; secure base distortion with features of self-endangerment (15 & 16) includes 15. *Dangerous/provocative* behaviors and 16. *Aggression* toward self and/or caretaker; secure base distortion with features of vigilance (17 – 23) include 17. *Hyper-vigilance* in general but especially toward teachers, 18. *Inhibited exploration*, 19. *Emotional constriction*, 20. Vigilance toward caretaker, 21. *Hyper-compliance*, 22. *Fear of displeasing,* and 23. *Lack of spontaneity*.

In addition to documenting child attachment behaviors using the structured observation protocol described above, in-depth field notes on teacher behaviors as well as other pertinent contextual information were also recorded. Each time a child attachment behavior was recorded – keeping the themes of teacher sensitivity/responsiveness, intrusiveness/over-control, detachment/disengagement, positive regard for child, and negative regard for child in mind – detailed field notes were used to describe the teachers response to the child's attachment behavior. Additional details describing the context of the teacher-child interaction were also

recorded. Lastly, teacher notes on child behavior[4] were reviewed to triangulate the child attachment data.

Security and organization of teacher-child attachment relationship. The teacher-child attachment relationship was assessed longitudinally using the Attachment Q-Sort 3.0 (AQS 3.0; Waters, 1987; Waters & Dean, 1985). The AQS has been reliably used in studies assessing the childcare teacher – child attachment relationship among both typical and atypical populations (Howes & Ritchie, 1999) and has been shown to have good validity with the Strange Situation Procedure (Howes & Hamilton, 1992; Vaughn & Waters, 1990).

The Attachment Q-Sort 3.0 is an observation-based measure designed to assess the attachment relationship between a child and his/her caregiver through organization of secure-base behavior in children one to five years of age. The AQS 3.0 consists of 90 individual statements (e.g., Child keeps track of mother's location when he plays around the house. Calls to her now and then. Notices her go from rook to room. Notices if she changes activities.) that together are intended to provide a comprehensive characterization of secure-base behavior of infants and young children.

Each of the 90 items has an AQS security criterion rating ranging from 1 to 9. During observation of a caregiver-child interaction each item is scored, or sorted on the degree to which the item is similar or dissimilar to the secure-base behavior of the child. Secure-base behaviors that were more characteristic of a child are given high scores/placements (i.e., categories 7-9), while those that were less characteristic of the child's behavior are given low scores/placements (i.e., 1-3). Items that were not observed and/or are neither characteristic nor uncharacteristic of

[4] As part of their job responsibilities teachers were required to keep notes on the behavior of each child in their charge at least three times per week.

the child are sorted in the middle (i.e., 4-6). Each AQS sort was then compared to a criterion sort of attachment security developed by experts and considered to reflect the characteristics of a secure attachment. Comparison of the scores generates a security score on a continuous scale from -1 to 1 where a higher score indicates greater security.

In addition, AQS item-level scores were grouped into subscales of attachment organization, which include secure, near secure, avoidant insecure, resistant insecure, avoidant/resistant insecure, and unclassifiable (following Howes & Ritchie, 1999). These attachment organization subscales help to interpret AQS scores by providing a mechanism through which specific qualities (e.g., avoidant, resistant) of the attachment relationship can be illuminated.

Structural quality. Structural quality was assessed through teacher-child ratios and classroom group size as well as teacher education and experience. Teacher-child ratios and classroom group size were assessed at one time point through in-class observation (i.e., during the CLASS administration). Information pertaining to teacher education, early childhood training, and childcare work history was obtained through survey administration with participating classroom teachers. The survey included six multiple-choice or yes/no questions (e.g., During the past 12 months have you completed any early childhood care and education certification and/or training courses?). Four of the questions included follow-up questions that, if applicable, asked the participant to expand on their answer by providing more detailed information (i.e., If yes, please indicate certification type and/or course titles). Answers to survey questions were aggregated across teacher participants and used to provide a descriptive picture of teacher education and experience.

Process quality. Process quality was assessed through teacher-child interactions and child exposure to activities and materials approximately three months after the start of the academic year. Teacher-child interactions were assessed using the Classroom Assessment Scoring System, Infant and Toddler versions (Hamre, La Paro, Pianta, & LoCasale-Crouch, 2011; La Paro, Hamre, & Pianta, 2012). The CLASS is an observation-based measure that rates teacher-child interactions across multiple dimensions of teacher behavior. Each dimension of teacher behavior receives a score between 1 and 7 and is measured across a minimum of four observation/scoring cycles, each lasting approximately 15 minutes. Scores are averaged across cycles to come up with a single score for each dimension. These dimension scores are then collapsed into distinct domain categories and averaged to come up with domain scores. Scores are interpreted using ranges – low (1, 2), mid (3 – 5), and high (6, 7) – that are used to describe levels of teacher effectiveness. Scores in the low, mid, and high range are described as minimally effective, inconsistently effective, and consistency effective, respectively.

The Infant CLASS contains four dimensions including Relational Climate, Teacher Sensitivity, Facilitated Exploration, and Early Language Support. Infant CLASS dimension scores are averaged across cycles and collapsed into one domain category: Responsive Caregiving. The Toddler CLASS contains eight dimensions including Positive Climate, Negative Climate, Teacher Sensitivity, Regard for Child Perspectives, Behavior Guidance, Facilitation of Learning and Development, Quality of Feedback, and Language Modeling. Toddler CLASS dimension scores are averaged across cycles and collapsed into two domain categories: Emotional and Behavioral Support, and Engaged Support for Learning.

Exposure to activities and materials was assessed using the Infant/Toddler Environment Rating Scale (ITERS; Harms, Cryer, & Clifford). The ITERS was developed to assess childcare

programs designed for children aged birth to thirty months. It contains six subscales including Space and Furnishing, Personal Care Routines, Listening and Talking, Activities, Interaction, and Program Structure. Each of the six subscales contains anywhere from five to eleven items that are each rated on a scale of 1 (inadequate) to 7 (excellent). For example, the Space and Furnishings subscale contains five items: indoor space, furniture for routine care and play, provision for relaxation and comfort, room arrangement, and display for children. Item-level variable scores for each of the six subscales are determined by averaging subscale scores. The six subscale scores are then averaged to come up with an ITERS overall score.

Teacher supports. An adapted version of the survey instrument used in LA County's Quality Rating Improvement System was used to gather information on supports available to childcare teachers. For the purposes of the current study only the Working Conditions dimension of the QRIS survey interview instrument was administered with an agency-level administrator. The Working Conditions dimension addresses various aspects of the employment conditions for childcare teachers. The Working Conditions scale contains twenty-two questions divided into three subscales: *Compensation and benefits* (e.g., There are written salary scales for classroom positions, Staff receive paid time off for vacation, sick, and personal leave); *Staff meetings* (e.g., Number of staff meeting per year held by program); and *Staff Development* (e.g., There is a written plan for orientation and other staff development activities for new employees, There are individual staff development plans maintained in writing for teaching staff). Twenty of the twenty-two items are closed-ended statements requiring interviewees to answer "yes", "no", or "not applicable". The remaining two questions are open-ended.

In addition to acquiring information on teacher supports through survey administration, in-depth information on the supports available to teachers (i.e., compensation, benefits, staff

development/training) were obtained through a review of documents provided by the childcare agency. These documents included the teacher pay scale as well as the training day schedule for 2014.

Data Analysis

Attachment Behaviors. Teacher-child attachment relationships were examined on an individual- and cross-case basis in order to gain a deep and meaningful understanding of the development of attachment relationships in maltreated children from both a within- and between-participant perspective. Data for each teacher-child dyad were analyzed using the following steps to create individual case studies of teacher-child dyads. Each case study was created using two primary components: 1) counts of child attachment behaviors collected through structured observation, and 2) descriptions of teacher and child attachment behaviors collected through in-depth field notes. Structured observation provided counts of child attachment behaviors over the course of each observation. Field notes were used to help contextualize and qualify teacher and child attachment behaviors.

The following steps were followed to build each case study. First, for each observation time-point, counts of child attachment behavior for each of the 23 items on the structured observation protocol were summed for each teacher-child dyad. Then, child attachment behaviors were collapsed into secure (tracking/proximity-seeking, positive interactions), insecure (avoiding, ignoring), and disordered (non-attached, secure base distortions) categories. Counts of the attachment behaviors contained within each of the three categories were summed for each teacher-child dyad. Once counts of attachment behavior were tallied across daily observation time-points, counts of behavior in each of the broad attachment behavior categories were collapsed by week and divided by total observation time for that week. Daily counts of

attachment behavior collapsed by week were graphed to capture continuity and change in attachment behavior overtime. Second, field notes were used to qualify the counts of child attachment behavior and describe teacher attachment behaviors. The teacher's observation notes were used to triangulate the child attachment behavior data. Together, counts of child attachment behavior and field notes describing teacher behaviors were used to describe each teacher-child dyad.

Third, the Attachment Q-Sort data collected at three- and six-months after the start of enrollment assessed continuity and change in attachment security and organization over time. Together, structured observation of child attachment behavior, field notes on teacher response to child attachment behavior, and attachment security scores at 3 and 6-months create a thick, rich description of what the development of the attachment relationship looks like for each teacher-child dyad. Cross-case analysis of attachment behavior graphs, contextual themes, and AQS scores were conducted to look for similarities and differences between teacher-child dyads to produce attachment trends and patterns.

Attachment security. Attachment security scores for each teacher – child dyad were calculated by comparing the individual AQS sort to the criterion sort of secure attachment to create a score, or correlation coefficient ranging from -1 to 1. Score cut-offs were used to determine attachment security. Scores of 0.33 and above were considered to be secure, while scores below this threshold were considered to be insecure.

Attachment organization. By grouping AQS items into theoretically meaningful categories, Howes and Ritchie (1999) identified six attachment organization subscales. These attachment organization subscales include secure, near secure, avoidant, resistant, avoidant/resistant, and unclassified. In order to determine attachment organization for each

teacher – child dyad, following the scoring conventions established by Howes and Ritchie, AQS items were grouped into five theoretically meaningful categories: harmony (1, -2, -6, 9, 18, 19, 24, 32, -38, 41, -54, 62, -65, 70, -79, -81), secure base (1, 14, 21, -25, -35, 36, 43, -59, -69, 80, 90), comfort (-3, 11, 28, -33, 44, 53, 64, 71), avoid (-5, 25, 29, 35, -43, 59, 76, 88), and resist (2, 8, -9, 10, 13, -20, 26, 30, 38, 54, 59, 61, -62, 74, 79, 81). Negative-value items were reversed scored.

For each of the teacher – child dyads raw scores for the items contained in each of the five categories were summed and averaged. Mean-level scores for each of the five categories were then coded as either 1 or 0. Categories with an average score of 7 or above were given a code of 1. Similarly, attachment quality scores were assigned the following codes: 2 for AQS scores $\geq$ 0.33, 1 for AQS scores between 0.00 and 0.32, and 0 for scores < 0.00. Together these two codes were used to determine the attachment organization of each teacher – child dyad.

Structural and Process Quality. Subscale and overall scores on the ITERS and Infant/Toddler CLASS were generated for each of the five classrooms. Combined, the subscale and overall scores on both the Infant/Toddler CLASS and ITERS were used to determine the aggregated process quality profile of infant and toddler classrooms at the centers where data was collected.

Teacher Supports. Data collected through survey administration and supplemental documentation (i.e., hourly teacher pay scale and training day schedule) were reviewed and described. Hourly teacher wages were converted to gross annual income for teachers at the lowest and highest tiers of the pay scale. The training day schedule for the calendar year during which data was collected was reviewed and training day topics coded by category.

CHAPTER 3. THE THERAPEUTIC CHILDCARE CONTEXT

This chapter provides the historical significance of (based on documentation provided by the agency) as well as a description of the present-day context of the childcare agency at which data for the current study were collected. The therapeutic program components including childcare services, and family supports and resources are described. Next, descriptive data is presented on the referral source, parent-child relationship classifications as well as psychosocial and environmental stressors faced by the families of the eleven child participants involved in the current study. Lastly, through a sampling of vignettes, this section was also designed to capture the range as well as the average family experience by illustrating the psychosocial and environmental conditions under which three families in the study sample were enrolled for services. Together, this chapter provides an historical and present-day landscape of the agency and its services as well as a glimpse in to the lives of the families this agency services.

Historical Significance and Mission of the Agency

In 1909, the Reverend of the local First Presbyterian Church founded City Day Nursery for the children of mothers who had to work in order to care for their families. At that time fees were based on ability to pay and ranged between a nickel and a quarter a day. Community members supported operations by donating food and volunteering their time to look after the children. In 1941, while their mothers worked at wartime enterprises during World War II, their children were safely cared for at City Day Nursery. By 1959, a Board of Trustees was formed, ending 50 years of volunteer management. Head Start is founded in 1965, offering early learning opportunities for low-income children and City Day Nursery is involved in helping to bring the program to the city. It is also involved in the Model Cities childcare program for the disadvantaged.

In 1972 the State mandated the reporting of child abuse and House Bill 1207 dedicates funding for research into the effectiveness of therapeutic childcare. Shortly thereafter in 1973 a new executive director was hired. Coming from a troubled childhood himself — his alcoholic father frequently abused the family, and all of the siblings spent time in foster care — he drew from his own life and his earlier work with juvenile offenders to shape City Day Nursery's program. With passage of the federal Child Abuse Prevention and Treatment Act in 1974, the executive director sets about securing state funds for a new child abuse prevention program. In 1976, after conducting research and visiting other programs around the country, the executive director, with the help of Child Protective Services, determined that the most vulnerable children are those age two and younger who cannot speak for themselves, were home alone with parents, and often are not seen by the public (unlike older children who attend school). The agency began its therapeutic child care program for children from birth through age five, an innovative approach that focused on helping the child regardless of parental participation and putting the child's safety and needs first. It was revolutionary at the time. Other social service programs focused on family unity; if the parents were not involved, the child was not served.

In 1985, firmly committed to the mission of breaking the cycle of abuse and neglect while caring for its youngest victims, the agency changed its name to what it is today. Between 1976 and 1992 Early Education Mobile Resource vans offered training and support to childcare centers and home-based childcare sites in three counties. In 1987, a new branch, named in memory of a 4-year-old boy whose death by horrific abuse at the hands of his father, helped spur broad improvements in the state's oversight of child abuse cases. A third branch opened in 1992, serving children in a more rural-suburban area outside the city limits. A few years later the agency received a legislative grant for a follow-up study on HB 1207 research. In 1998, the

results from a study funded by a legislative grant to follow-up on HB 1207 were published. Results suggested that children who attended the childcare agency were six times less likely to have committed a violent juvenile crime, better adjusted in school, and two and half times less likely to abuse drugs as adolescents (Moore, Armsden, & Gogerty, 1998).

In 2004, the new flagship branch opened on the site of the former City Day Nursery. More than 2,000 individuals, corporations and foundations contributed to the campaign to modernize and sustain their treasured community resource. Today, across its three branch locations the agency serves some 300 young children and their families each year. The agency's model childhood trauma treatment program has been replicated in communities throughout the state, in other parts of the United States, and in Canada.

Present Day: Inside the Flagship Branch

Walking up to the expansive four-story structure that is the agency's flagship branch it is evident that every detail has been lovingly planned and painstakingly attended to. The building's modern façade, comprised mostly of concrete and wide stretches of red brick, is free from the grit and grime that commonly drape inner-city dwellings. Well-manicured plants and bushes adorn the grounds surrounding the perimeter of the building. Evergreen trees line the inside of the black iron gates that separate the children's outdoor play areas from the city sidewalk from which passersby can tell very little about the interior of the building. All doors leading inside – including at the front and back of the building as well as the door leading in from the underground parking garage are secure, requiring visitors to be buzzed in by the front desk attendant. For this agency security is not a superfluous amenity. While secure entry is not an uncommon childcare facility feature, the reason for its presence at the present agency is anything

but common. CPS routinely removes children from their parent's care during the childcare day. Secured entry helps to ensure the security and privacy of the children and families served as well as to ensure that disgruntled parents whose children have been removed from their care do not have access to them during childcare hours.

Upon entering the building it becomes clear that the interior is attended to with the same love and care as the exterior. The interior is bright and welcoming, painted a soft yellow and warmly decorated with children's artwork and parent information boards advertising agency-led parenting classes and workshops as well as local resources for families. Overhead, decorative blown-glass butterflies hang from the ceiling, leading you from the lobby to the hallways leading to the first floor classrooms. These hallways, lined with more colorful artwork, lead to two separate wings from the lobby. The infant and toddler rooms are located to one side, while the preschool-aged classrooms are located on the other. The three infant and two toddler classrooms have the capacity to serve 36 children aged 1 to 24 months and were designed to fit the needs of both children and teachers. The classroom layouts were expertly planned with infants and toddlers in-mind, as the teachers who would be working in them were recruited in the design phase. Each classroom has its own outdoor play area.

A wide staircase off the lobby welcomes families to the second floor, where the kitchen and family lounge are located. Families receiving agency services are welcome to two meals a day – breakfast and lunch – that they can enjoy in the dedicated family lounge. The second floor also contains the staff lounge, an all-purpose large meeting room where trainings, board meetings and holiday celebrations are held as well as office space for professional support staff (e.g., nurse, home visitor, parent training program manager). Off the all-purpose meeting room is a large outdoor play area that spans the size of the infant and toddler wing. The playground

contains a number of outdoor play structures for sliding, climbing, swinging, and bouncing. There is a small sandbox in one corner and a narrow planter box along one side containing a flower and vegetable garden. The third floor houses a staff library along with additional conference rooms and office spaces, some of which are rented out to other non-profit agencies. The fourth floor houses the agency's administrative offices. The agency, in both its precision and maintenance of the flagship structure as well as its dedication to the mission of breaking the cycle of abuse and neglect, is a resource that any community would treasure.

Childcare Program Components

Childcare Services. Children enrolled for childcare services received approximately seven hours of care per day, five days per week (with the exception of biweekly training days when children attend four out of the five days). Five and a half hours per day were spent at the childcare facility. The remaining approximately one-and-a-half hours were spent in transport to and from the center. While individual classroom schedules varied by the age group as well as the developmental capacity of the children in each classroom, every day all children received two meals (breakfast and lunch) and a snack, and were provided with a nap or quiet time. Infants were fed formula and were given solid food (jarred baby food and small finger foods) as soon as it was developmentally appropriate. Diapering supplies (diapers, wipes, diaper rash cream) were provided for children who were not potty-trained. In addition, childcare services included primary teacher assignment, transition plans, individualized treatment plans, and transportation services.

Primary Teacher Assignment. All children were assigned a primary teacher at entry. The primary teacher was primarily responsible for caretaking tasks during the childcare day as well as completing daily reports and detailed notes for each of the children in her care ("primaries").

The program was designed for children to remain in their classroom for a full twelve months before they transition to the next age group (infant, toddler, preschool). After this twelve-month period of time, infants transitioned to the toddler classrooms and toddlers transitioned to the preschool classrooms. There were exceptions made for children who were not developmentally prepared to transition and every effort was made to allow these children to remain in their original classrooms until they were ready. However, allowing teachers and children to remain together across age groupings (infant, toddler, and preschool), or "looping" was not practiced at this agency.

Transition Plan. Classroom transitions were based on the needs of each individual child and often spanned the course of several days to a week. Initially, during this transition time teachers accompanied their "primaries" to the new classroom for short periods of time to allow the child to become accustomed to his new environment within the safety and security of the relationship with the primary teacher. Eventually, the primary teacher dropped the child off in his soon-to-be classroom and returned later to pick him up. This gradual transition process was designed to be respectful of the teacher-child attachment bond as well as to be sensitive to the significance of separation for this population of children. In doing so, making the full transition to a new classroom as seamless as possible. It was not uncommon for primary teachers to occasionally visit the children formerly in their care once the children had settled in to their new classroom.

Individualized Treatment Plans and Case Report Meetings. An individualized treatment plan was created for each child to monitor progress on specific developmental goals over time. The contents of a child's treatment plan were based on clinical observations of the child in the classroom conducted by a child and family therapist (CFT) as well as teacher and parent report

of the child's overall developmental presentation and specific behaviors. Teachers were required to complete daily progress reports on a rating scale of 0 (not true) to 3 (very often true) using a software program designed to track daily behavior, affect, and signs of abuse and neglect of children in their care. In addition, teachers were required to complete detailed notes at a minimum of three times per week to qualify the ratings given, or to descriptively capture a specific behavior or incident. These data were compiled and presented at biweekly case report meetings to discuss each child's progress and re-evaluate treatment plan goals. Regularly in attendance at these meetings were the classroom teachers, CFTs, the site supervisor, and director.

Transportation Services. As part of program enrollment, parents/legal guardians could opt to have their child(ren) transported to and from the therapeutic childcare center each day. Nearly all (95%) children were transported in this manner, although a handful of parents dropped off and picked up their child(ren) at the childcare center. Children were transported in fifteen-seat passenger vans, each of which is staffed by two teachers. One teacher was responsible for driving the van and one teacher is responsible for buckling children in to their car seats and keeping them occupied once they are on the van. The van driver was the parent's point of contact at pick up and drop off and therefore also responsible for relaying messages between center staff (e.g., classroom teachers, child and family therapists) and families. A child's van assignment was based on geographical location of his/her pick-up and drop-off location (typically where the child was living, however, special arrangements were made to pick up and drop off at locations more convenient for parents), rather than by childcare classroom. As such the teachers that staffed a child's van at any given time may have been, but were not usually his/her regular classroom teachers. In addition, van staff was regularly rotated between routes to ensure that teachers learned multiple van routes, making the likelihood of a van staffed by two teachers from

the same classroom low at any given point. Staffing vans with teachers who are not the child's designated teacher also provided the children with an opportunity to familiarize themselves with various staff members.

Family Supports and Resources

Support Staff. In addition to the site supervisor and program director there were various professionals specializing in child and family welfare employed by the agency. These positions were designed to provide support for the children and families served by this agency. These support staff positions included child and family therapists (CFT), program operations manager, parenting skills program manager, home visitor, developmental tester, and nurse. Together, these members of the support staff helped to bridge the gap between the child's two primary worlds – home and childcare.

Once a child was referred for childcare services and enrolled at a childcare site, each family was assigned to an in-agency child and family therapist (CFT). All CFTs were required to have a Master's degree in a relevant social services field (e.g., Social Work, Child and Family Therapy). The primary role of the CFT was to provide support for families as well as to facilitate communication between the family and childcare center and/or teachers. In this support role the CFT was tasked with establishing and maintaining relationships with parents/guardians, as well as communicating with other in-agency family support staff (parenting skills program manager, home visitors, developmental tester, and nurse) to coordinate access to agency services and community resources, if necessary. The program operations manager was responsible for managing all areas of childcare program operations including teacher recruitment and hiring, planning and implementing teacher trainings, classroom curriculum as well as conducting classroom observations, volunteer oversight, and coordination of events (e.g., fieldtrips). The

parenting skills program manager conducted individual parent coaching sessions using the Parent-Child Interaction Therapy (PCIT; Robinson & Eyberg, 1981) approach and ran many of the parent training groups, alongside the CFTs. The home visitor checked-in with families in their homes to get a sense of their need or desire for services as well as to ensure that the home environment was suitable for young children. The developmental tester assessed each child's developmental capacity in all major domains of development (adaptive, cognitive, communication, personal-social, and motor) using the Battelle Developmental Inventory. Conducting this assessment allowed a child's treatment goals to be established and the teachers to select appropriate intervention strategies for the classroom. Test results were also used to access additional outside services (e.g., occupational therapy, physical therapy, speech and language specialist), when necessary. The on-site nurse administered medications and checked for signs of illness when necessary, and regularly recorded height and weight measurements to ensure that the children are meeting these developmental milestones. Together these professionals provided a level of care to the children and families that they would be hard pressed to find under one roof elsewhere.

Parenting Programs. The agency offered a number of additional supports and resources for the families whose children were enrolled for childcare service including access to evidence-based parenting skills programs and parenting groups as well as the receipt of community- and agency-based donations. In total the agency offered seven different parenting-skills programs, some of which were evidence-based and others of which were not. Programs were either offered in a group-based setting, or one-on-one. The agency offered four evidence-based parenting skills programs. Evidence-based programs included Parent Child Interaction Therapy (PCIT; Robinson & Eyberg, 1981), Promoting First Relationships (PFR; Kelly, Zuckerman, Sandoval, and

Buehlman, 2008), Incredible Years (Herman et al., 2011), and Power of Positive Parenting (Sanders, et al., 2002). The agency also offered three other parenting skills programs, which included the K-Prep Program, Parent Support Day, and Applied Parenting.

Donations. Families whose child(ren) were enrolled for childcare services were also eligible for donation programs through the agency. Donation programs provided for the occasional distribution of day-to-day goods (e.g., diapers, formula, gift cards for groceries) for families in dire straits as well as holiday meals and gifts. The week before Thanksgiving families were invited to dine alongside their children in a traditional Thanksgiving feast. For this occasion families were transported to and from the center on the agency vans. Families, dressed for the celebratory feast, were observed filing in to their children's classrooms to enjoy a family-style meal. At Christmas time, the agency also organized the distribution of a holiday meal and gifts for the whole family, a monumental effort that, leading up to Christmas day, filled empty conference rooms and unoccupied offices to the brim with gifts. To participate families were asked to submit a holiday wish list that could include items for the household (e.g., bath towels) as well items for each immediate family member (e.g., mom, dad, siblings). These lists were then distributed to community members, who purchased the gifts for the families. The gifts and a traditional (i.e., turkey, side dishes, pie) holiday meal were delivered together to each agency family. Donations from the community also provided every child enrolled for childcare services with three birthday presents (one outfit, one book, and one toy) for each birthday spent at the agency. Pre-school-aged children who were graduating from the program and heading to Kindergarten were given backpacks filled with school supplies.

Psychosocial and Environmental Conditions of Agency Families: The study sample

Referral Source. Of the 11 children in the study sample approximately one-third were referred by each of three referral agencies: public health nurses (PHN, 36%; n=4), economic service administrators (ESA, 36%; n=4), and child protective services (CPS, 27%; n=3). The families who were referred for therapeutic childcare services by child protective services had an open CPS case for a child currently in their care (may or may not be the child participating in the current study). See Table 3.

DC: 0 – 3R Axis II: Parent – Child Relationship Classification. There are two diagnostic components of the parent-child relationship classification: The Relationship Problems Check List (RPCL) and the PIR-GAS score. Of the seven parent-child relationship quality classifications the most commonly diagnosed classification (across the nine participants for whom data was available) was Under-Involved (89%; n=8)[5]. One parent-child relationship was classified Anxious/Tense. According to the DC: 0 – 3R Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood, Revised (2005) the under-involved parent-child relationship is described as one wherein the "parent may show only sporadic, infrequent involvement or connectedness with the infant or young child. Lack of connectedness is often reflected in the low quality of care offered by the parent directly, or purchased as child care." (p. 47)

The PIR-GAS scores in this sample, which represent the intensity, frequency, and duration of the parent-child relationship difficulties, ranged from 10 to 38 with an average score of 28.2 across the ten parent-child dyads for which data was available. The most common score among the sample reflected a Disordered (60%; n=6) parent-child relationship classification.

[5] Missing data on relationship classification of two parent-child dyads. One dyad was not enrolled long enough to receive a diagnosis and the other dyad was given a partial diagnosis (a PIR-GAS score, but not a parent-child relationship classification).

According to the DC:0-3R, a score in the Disordered range reflects a relationship that is characterized by "rigidly maladaptive interactions, particularly if they involve distress in one of both partners. Most interactions between partners are conflicted; some relationships without overt conflicts may nevertheless by grossly inappropriate developmentally. Developmental progress of the child and the parent-child relationship is likely to be influenced adversely." (p. 44). Other PIR-GAS scores represented in the study sample included Severely Disordered, Grossly Impaired, and Documented Maltreatment (in order from least to most severe relationship difficulties). See Table 4.

DC: 0 – 3R Axis IV: Psychosocial and Environmental Stressors Profile. At the time of intake parents/legal guardians completed a Psychosocial and Environmental Stressors checklist, indicating that out of a total of 70 stressors families in this sample were exposed to an average of 10.2 psychosocial and environmental stressors (SD = 2.04; range = 7 – 13). The most commonly reported psychosocial and environmental stressors from each of the seven categories delineated by the PSES checklist are as follows: 1. Economic Challenges, poverty (100%; n = 11); 2. Housing Challenges, homelessness (82%; n = 9); 3. Challenges in the Social Environment, inadequate social support (73%; n = 8); 4. Challenges to the Primary Support Group, parental mental illness (73%; n = 8) and parental substance abuse (64%; n = 7); 5. Legal and Criminal Justice, child protective services involvement (55%; n = 6); 6. Educational/ Childcare Challenges, parent without a high school diploma (45%; n = 5); and 7. Health of Child, child hospitalization (36%; n = 4). Of the eight most common psychosocial and environmental stressors families in this sample had been exposed to an average of 5.36 (SD = 1.50; range 4 – 8). See Table 4.

Psychosocial and Environmental Stressors: Sample Family Vignettes

The following vignettes describe the psychosocial and environmental conditions under which a sampling of children entered care. To capture both the range of and average child experience each example was chosen based on the quantity of psychosocial and environmental stressors (PSES) reported by parents/guardians. Quantity of psychosocial and environmental stressors was determined both by the total number of stressors reported (out of 70) and the quantity of stressors most characteristic of the sample (out of 8). Vignette one (Eliana*) represents the fewest number of PSES (n=7) across all eleven participants and the fewest number of PSES most common to this sample (n=4). Vignette two (Troy) represents the average number of PSES (n=11) and the average number of PSES most common to this sample (n=6). Vignette three (Emmett) represents the highest number of PSES (n=13) across the entire sample and the highest number of PSES most common to this sample (n=8).

Vignette 1*: Eliana is female and entered the program at twelve months of age. She is reported by her biological grandmother to be of African American and American Indian descent. Eliana is currently in the care of her maternal grandmother and has been in her care since birth. Her biological mother has a history of substance abuse, mental illness, incarceration, and homelessness. Eliana was exposed to alcohol in-utero. For the first six months of Eliana's life her grandmother allowed visitation between her and her biological mother. However, these visitations stopped abruptly when it was discovered that the mother was abusing substances while Eliana was in her care. Since then, contact between Eliana and her mother has been terminated. Eliana and her grandmother currently live in a low-income apartment complex. Her grandmother reports that she is a recovering alcoholic, but has been sober for nearly ten years. Grandmother reports that she has some social support from family and neighbors.*

* All names have been changed to protect the identity of participants.

The family was referred for therapeutic childcare services by a social worker at the Economic Services Administration. Intake assessment indicates that Eliana has experienced a total of seven psychosocial and environmental stressors since birth, four of which are most common among families in the study sample. She scored in the low-to-low-average range on the Battelle Developmental Inventory, as assessment designed to measure global development across five domains. She has never attended a childcare program prior to her enrollment in therapeutic childcare services at the present agency. Based on the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (DC:0 – 3R) at program entry the child's diagnosis was Parent Child Relationship disorder (biological mother), Under-involved PIR-GAS 15 (grossly impaired).

Vignette 2*: Troy is male and entered the program at eleven months of age. He is reported by his biological mother to be of European American and Mexican American descent. Troy is currently in the care of his biological mom and has been in her care for the past six months. Troy's mom has a long history of substance abuse, which reportedly began when she was an adolescent. She reports that she used methamphetamines and consumed alcohol during her pregnancy with Troy. As a result, he had a positive toxicology screen at birth and he was immediately removed from her care. Troy spent two weeks in the hospital while he received detox treatment and was later diagnosed with fetal alcohol exposure (FAE). After detox he was placed in the care of his maternal grandmother, with whom he lived for the first five months of his life while his mother attended a residential drug treatment program for women. Troy's biological father is not involved in his life. Troy's mom reports that the two of them currently live in transitional housing and will remain there until a more permanent housing arrangement becomes available.*

The family was referred for therapeutic childcare services by a social worker with child protective services. Intake assessment indicates that Troy has experienced a total of eleven psychosocial and environmental stressors since birth, six of which are most common among the families in the study sample. The Battelle Developmental Inventory indicates that Troy shows significant delay in self-care, and receptive and expressive communication skills. He attended a for-profit childcare program prior to his enrollment in therapeutic childcare services at the present agency. Based on the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (DC:0 – 3R) at program entry the child's diagnosis was Parent Child Relationship Disorder, Underinvolved, PIR-GAS 31 (disordered).

Vignette 3: *Emmett is male and entered the program at nineteen months of age. He is reported by his biological mother to be of African American and European American descent. He was in the care of both his biological parents and has been in their care since birth. Mom reported that Emmett was born with a congenital medical condition for which he underwent surgery at two weeks of age and remained in the neo-natal intensive care unit until six weeks of age. In addition, he has a history of asthma and has recently begun to experience epileptic seizures. Emmett's mom has a history of both physical and mental illness as well as a history of substance abuse. She received methadone treatments throughout her pregnancy with Emmett and reported that her methadone treatment is currently on going. Mom is unemployed and Emmett's father worked nights full-time to help support the family. Mom reported that the family's level of social support is low. The family of seven (Emmett is one of four siblings) is homeless. They are currently living in a motel room while they wait for a more permanent housing arrangement to become available. The family has been involved with CPS due to documented neglect of two of Emmett's older siblings, who were removed from the home and spent time in both relative and*

non-relative foster care. The children were reunited with their biological parents; however, the family's involvement with CPS was on going as a result.

The family was referred for therapeutic childcare services by a social worker at the Economic Services Administration. Intake assessment indicates that Emmett has experienced a total of 13 psychosocial and environmental stressors since birth, eight of which are most common among families in the study sample. The Battelle Developmental Inventory indicates Emmett shows moderate to significant developmental delay in multiple domains of development. He attended two childcare programs prior to his enrollment in therapeutic childcare services at the present agency. Based on the Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood (DC:0 – 3R) at program entry the child's diagnosis was Parent Child Relationship Disorder, Underinvolved, PIR-GAS 38 (disordered).

Chapter Summary

The childcare agency at which the present study was conducted has shown a long-standing commitment to the families and children in the local community. While the agency has seen a multitude of reformations over the course of the past century, its dedication to at-risk children and families remains unchanged. Children enrolled for childcare services at this agency's three branch locations are provided with a level of care that is required for the development of secure teacher-child attachment relationships. Notable childcare features, which are consistent with a relationship-based approach, include primary teacher assignment, transition planning, individualized treatment plans as well as child progress notes and bimonthly case meetings (Raikes and Edwards, 2009). In addition, to ensure that children are consistently in attendance they are transported to and from the childcare center each day. Additional family

supports and resources included a team of support staff dedicated to providing families with necessary services, evidence-based parenting skills classes, and donation programs.

Eligible families contended with a variety of psychosocial and environmental stressors and were referred for services by public health nurses, economic services administrators, and child protective service workers. The most common psychosocial and environmental stressors experienced by the families who participated in the present study included poverty, homelessness, inadequate social support, parental mental illness and substance abuse, CPS involvement, parents without a high school diploma, and child hospitalization. In addition to exposure to these and other lifetime stressors all parent-child dyads met diagnostic criteria for Axis II, Relationship Classification, diagnoses.

CHAPTER 4. CHILD AND TEACHER ATTACHMENT BEHAVIORS

By breaking teacher-child attachment relationship development in to its component parts, child attachment behaviors and teacher attachment behaviors, this chapter lays the groundwork for answering the first part of research question one: How do maltreated children begin to organize their attachment behaviors around their primary childcare teacher? First, this chapter provides an overview of the types of child attachment behaviors observed across ten of the eleven child participants over the course of the three-month structured observation period[6]. Then, this chapter provides an overview of the types of teacher attachment behaviors observed over the course of the three-month structured observation period across the eight primary teachers to the

[6] One child's attachment behavior data was not incorporated into the proceeding chapters on teacher-child attachment relationship development due to her late enrollment and frequent absence as well as medical condition that made it difficult to reliably assess the relationship.

ten child participants. Child and teacher attachment behavior data is presented in the aggregate and/or has been de-identified to protect the identity of study participants.

At the end of the three-month observation period attachment relationship security was assessed for all teacher-child dyads using the AQS (T1), a standardized measure of attachment. Teacher-child attachment relationships were assessed a second time (T2) six months later to measure change over time. T1 and T2 AQS scores for all teacher-child dyads will be addressed in the following chapter (Chapter V); however, AQS scores are referenced in this chapter for illustrative purposes.

Child Attachment Behaviors Across the Three-Month Structured Observation Period

Secure Child Attachment Behaviors. Visual tracking/proximity-seeking and positive interactions were observed in all ten teacher-child dyads. Observations of visual tracking/proximity-seeking behaviors were categorized as follows: visual following (e.g., prolonged gaze), visual checking-in (e.g., brief gaze), close proximity (e.g. playing in close physical proximity to teacher), and proximity seeking (e.g., fussing, crying). Observations of positive interactions were categorized as follows: positive affect (e.g., smiling, laughing), communication (e.g., talking/babbling, gesturing, signing), affection (e.g., hugs), and joint engagement (e.g., playing together).

Insecure Child Attachment Behaviors. Avoiding and ignoring behaviors were consistently observed across three teacher-child dyads. Avoiding and ignoring behaviors observed across teacher-child dyads were coded as follows: re-routing (e.g., walking toward primary teacher, but changing direction mid-course), stopping-short (e.g., walking toward the primary teacher, but stopping and watching teacher before discontinuing approach), acknowledge/dismiss (e.g., acknowledging the primary teacher's attempt to initiate an

interaction, but not following through with a response), and no acknowledge (e.g., not acknowledging the primary teacher's attempt to initiate an interaction).

Disordered Child Attachment Behaviors. Disordered child attachment behaviors were observed across five teacher-child dyads. Three of the five disordered child attachment behaviors were consistent with a profile of non-attachment, and two were consistent with an attachment profile characterized by secure-base distortions. The primary disordered attachment behavior observed in two of the three teacher-child dyads exhibiting non-attachment behaviors was indiscriminate behavior toward strangers (e.g., sitting in a stranger's lap). The non-attachment behaviors exhibited in the third dyad included social inhibition (e.g., isolated play on the periphery of the larger group), emotional withdrawal (e.g., flat affect), emotional dysregulation (e.g., inability to be soothed when upset), and failing to seek help/comfort when distressed. The primary disordered attachment behavior in one of the two dyads that showed secure-base distortions was aggression (e.g., swatting at teacher) toward the primary teacher. Secure-base distortions including clinging (e.g., near constant need for close proximity to teacher), hyper-vigilance (e.g., watchful of strangers), and inhibited exploration of the environment were observed in the second teacher-child dyad.

Teacher Attachment Behaviors Across Three-Month Structured Observation Period

Secure Teacher Attachment Behaviors. Secure teacher attachment behaviors included consistent sensitivity and responsiveness toward as well as positive regard for the child. While all eight primary teachers were observed at one point or another engaging in secure attachment behaviors with the children in their care, a distinction in the quality of the secure attachment behaviors was noted. A high-quality teacher attachment behavior was characterized by all four of

the qualities that have been shown to predict secure attachment relationship development. These four qualities include consistency, responsiveness, sensitivity, and positive regard for the child. While most secure teacher behaviors reflected all four elements, there were other interactions that while still positive and indicative of secure attachment, were missing one or more of the four primary components. The absence of one or more of these crucial components made interactions appear lower in quality. The following examples qualify the difference between higher and lower quality secure teacher attachment behavior. To protect the identity of study participants, teachers featured in the following section will be referred to as Teachers A, B, and C.

Higher Quality Secure Teacher Attachment Behaviors. Teacher A consistently exhibited the responsiveness, sensitivity, and positive regard that reflects high quality secure attachment behavior. In one such example the teacher enters the classroom after her lunch break to an elated child.

> The primary teacher enters the room. The target child looks over, immediately smiles, and starts bouncing excitedly on his knees for a few moments. Teacher laughs and smiles, goes to the carpet area near where the child is sitting, opens her arms and says "Come here!" Child crawls over, teacher takes him in her arms and snuggles him. Teacher and child "talk" to one another (teacher makes noises with her mouth and child imitates), laugh, and smile.

The next day at nap Teacher A was again observed interacting with this child in a sensitive, responsive manner. In this example, the teacher is holding the child, putting him down for nap.

> Child takes his bottle, lies in teacher's arms. Child looks up at teacher and reaches out to touch her face. He does this twice. Teacher has her head turned toward child, gazing down at him lovingly as he takes his bottle. The teacher has a contented, soft smile as she strokes the child's head and face.

In both of the above examples there appears to be sensitivity, responsiveness, and mutual positive regard between this teacher and child. Together, these examples exemplify the

consistency of Teacher A's secure attachment behaviors toward the children in her care. Had this pattern of secure attachment behaviors continued it is likely that the dyad would have scored in the secure range on the AQS. Unfortunately, this child was only enrolled in the program for a few short weeks before his family was relocated to a shelter outside of the agency's catchment.

Teacher B was also frequently observed consistently responding to the children in her care in a manner that exuded sensitivity, responsiveness, and positive regard. On one occasion, the teacher is holding a target child in her lap and "dances [with] and bounces him. He watches her and smiles, reaches out and touches her face." The interaction continues when the teacher "shakes [her] head back and forth, makes noises with her mouth and smiles while looking at the child. He imitates [her] and she imitates back." On another occasion during snack the teacher sits down next to the same child and

> claps and makes silly faces and noises. She then moves her head toward his head and taps her forehead to his and then pulls away. She does this again, but this time the child leans in toward her as she leans in to touch her forehead to his. The child looks at her and smiles as they do this.

On another occasion while the teacher is changing this child's diaper she interacts with him by making "silly noises and faces. He smiles and reaches up toward her and babbles. They [continue to] "talk" to one another." Again, had this pattern of secure attachment behaviors continued it is likely that the dyad would have scored in the secure range on the AQS. Unfortunately, the child was only enrolled in the program for a few short weeks before his family was relocated to a shelter outside of the agency's catchment.

These examples reflect the high quality secure attachment behaviors that consistently characterized the interactions between this teacher and child across the childcare day. A consistent pattern of interaction that is characterized by sensitivity, responsiveness, and positive

regard has been shown to build strong, secure attachment relationships between teachers and the children in their care.

Lower Quality Secure Teacher Attachment Behaviors. In contrast, some teachers exhibited lower quality secure attachment behaviors with the children in their care. These lower quality secure attachment behaviors included varying doses of each of the four primary components (consistency, responsiveness, sensitivity, and positive regard). In one example, while Teacher C was observed responding to a child's cries, she responded in a manner that was devoid of emotional connection and understanding, or sensitivity.

> The teacher takes the child, who is crying, for a diaper change. The child continues to cry throughout the diaper change. The teacher talks to her in a neutral tone and says, "I'm sorry you're sad." The child continues to cry while the teacher appears to be going through the motions.

While Teacher C responds to the child's needs by changing her diaper, due to a lack of sensitivity in response to the child's cries the behavior fell short of high quality secure attachment behavior. On another occasion as Teacher C prepared for lunch, this child closely tracked her whereabouts in the classroom and began to fuss as she became progressively preoccupied with her teacher's movements. Again, while the teacher responded to the child's fussing she did so in a way that lacked sensitivity, or emotional connection and understanding.

> The teacher brings food tray in from the hallway and walks back and forth between the door and counter removing items from the tray. The child shadows her and fusses softly. She stays near her teacher fussing as she prepares lunch. The child calms down and is quiet for a few minutes, distracts herself with room exploration. Then, she begins to cry/fuss while looking at her teacher and following her around the room again. In a calm, neutral tone her primary teacher says, "I'm sorry you're upset" and goes about preparing lunch. The child continues to cry. The teacher picks her up and carries her around for a minute or so and she stops fussing once in her arms but still looks very sad. When she puts her down and she begins to cry again.

In both of these examples there was a disconnect between what Teacher C expressed through her verbal response (apologetic, sympathetic) and emotional response (neutral, emotional valence did not match the child's). Again, while she does attend to the child's needs in both examples (i.e., changing her diaper, picking her up) her emotional responsiveness to the child lacks sensitivity. While these are not altogether negative interactions, or interactions that might promote an insecure or disordered attachment relationship, they do reflect a lower quality of secure teacher attachment behavior.

However, there were other occasions when teacher C exhibited higher quality secure attachment behaviors, wherein her verbal and emotional response were in sync. For example on one occasion,

> The child begins to fuss/cry while sitting in the tiled area of room. The teacher, who is sitting on the carpet nearby looks up at her and asks her what's wrong. The child looks at her and keeps fussing/crying. The teacher reaches her arms out and says "Come here!" in a bright, warm voice. The child quickly walks over and crawls into her lap and stops crying. She sits in the teacher's lap for a few minutes and then plays with and near her for another few minutes.

Due to a relationship pattern characterized by both higher and lower quality secure teacher attachment behaviors, it is likely that this teacher-child attachment relationship would have scored in the secure range at T1 and T2. However, at T1 AQS administration the child had only been enrolled for five weeks and therefore was not eligible due to the eight-week requisite for relationship assessment. At T2 AQS administration, the child had aged out of her first classroom and was placed in to a more age- and developmentally-appropriate classroom with a different primary teacher. It is worth noting that the child described in these vignettes was able to develop a secure attachment relationship with her next primary teacher.

High quality secure teacher attachment behaviors were characterized by consistently responding to a child's needs in a manner that was both sensitive and exhibited positive regard for the child. Lower quality secure teacher attachment behaviors in this sample were characterized by consistent responsiveness; however, the teacher's responses often lacked sensitivity and/or were characterized by a neutral regard for the child.

Insecure Teacher Attachment Behaviors. Insecure teacher attachment behaviors including intrusiveness and disengagement were observed among some of the teacher-child dyads. A lack of attunement to the child's cues during positive interactions characterized the type of intrusiveness that was occasionally observed between teacher and child in the current study sample. While teacher intrusiveness was occasionally observed among some of the teacher-child dyads, its presence in the teacher-child relationship was infrequent enough to neutralize its effects on the development of a secure teacher child attachment relationship. That is, intrusive interactions, although occasionally present, did not compromise the development of secure attachment relationships between teachers and children, even among this highly vulnerable population of children. This is due to the fact that these behaviors, although occasionally present, did not characterize the teacher-child relationship pattern.

In addition to the teacher-child dyads wherein occasional, but still overall infrequent intrusiveness was observed, there were two teacher-child dyads wherein teachers were observed more consistently disengaged. The disengagement observed in these two teacher-child dyads was frequent enough to constitute a relationship pattern. To protect the identity of study participants, teachers featured in the following section will be referred to as Teachers W, X, Y, and Z.

Insecure "Intrusive" Teacher Attachment Behavior. In one example of occasionally intrusive teacher behavior, Teacher X is attempting to get a target child's attention by playfully

saying “Where’s (target child name)?” as the two of them are both in the same area of the classroom playing.

> The teacher says “Where’s (target child name)?!” again. The child – sitting a few feet away from the teacher – playfully runs right by her. As the child is running by, the teacher reaches out, catches, and pulls the child toward her body. The child smiles and topples over her teacher. The teacher tickles her and the child smiles and giggles, squeals gleefully. The teacher stops tickling the child and she stumbles away to play on the slide. The teacher meets the child at the bottom of the slide, picks her up and holds her. The teacher tries to re-engage the child by being silly but the child looks around the room, appears to be avoiding the teacher’s attempts. [When the child does not respond] the teacher ramps up her attempts to re-engage the child such that she almost cannot ignore her. The teacher brings her face close to child’s and shakes her head back and forth. The child finally responds with a smile and then buries her head in to the teacher’s shoulder.

In this example, Teacher W’s attempts to re-engage the child disrupted the flow of the interaction and, while it had a positive quality overall, the teacher prevented the interaction from running its natural course. During the course of attempting to re-engage the child, the teacher missed the cues that by running away to play on the slide the child ended, rather than paused their interaction. This became clear when the teacher attempted to re-engage the child and she looked away. Her second attempt at re-engagement was met with an attempt to appease the teacher’s desire to re-engage, although the child quickly replaced it by burying her head in her teacher’s shoulder to end the interaction. Again, it is important to note that this teacher’s lack of ability to accurately read and appropriately respond to the child’s cues in this particular situation did not characterize their teacher-child attachment relationship pattern, enabling them to develop a secure attachment relationship at T1 and T2.

In another example of intrusiveness, or lack of attunement to the child’s cues, Teacher X is observed encouraging the target child to practice standing and walking. While initially the

child responded by complying with her attempts, he soon thereafter began to show signs that he was no longer interested in continuing.

> The teacher and child practice walking around the room together. The child has a big smile on his face and reaches his arms out toward the teacher's face. The teacher holds the child upright and encourages him to take a step on his own. Instead he tries to sit down. The teacher picks him back up to a standing position. The child stands for another minute and then tries to sit down again. The teacher encourages the child to stay standing. The child stands for a few more minutes ... and then turns around and moves to sit in teacher's lap. The teacher encourages him to stand, but it is clear he is all done, as he clings to her arm in an attempt to reach her embrace.

In this example, the teacher did not read and appropriately respond to the child's cues (multiple attempts to sit down) communicating that he was finished standing and ready for a break in her arms. However, during the course of the two weeks that he was in care, this child's cues were observed to be characteristically subtle, likely making it even more difficult for teachers to accurately read and respond to them. That is, the child typically had a smile on his face and very infrequently, if ever, made his needs known by vocalizing (e.g., fussing, whining) on his own behalf like other children his age. This may have made it especially difficult for his teachers to meet his needs. Overall, outside of the rare occasions wherein this teacher was not attuned to the child's cues, the dyad shared mostly positive interactions characterized by secure child and teacher behaviors. Had this pattern of secure attachment behaviors continued it is likely that the dyad would have scored in the secure range on the AQS. Unfortunately, the child was only enrolled in the program for a short two weeks before his family was relocated to a shelter outside of the agency's catchment.

Insecure "Disengaged" Teacher Attachment Behaviors. In addition, insecure teacher behaviors characterized by disengagement were also observed. Teacher disengagement in the study sample was characterized by a lack of responsiveness to the child. Similar to intrusive

teacher behavior, disengagement was only occasionally observed among some of the study sample teachers. However, unlike the occasional lack of attunement observed between teachers and children that resulted in intrusive behaviors, two teachers showed consistent patterns of disengagement in their interactions with at least one of the primary children in their care. One of these teachers, Teacher Y, exhibited an inconsistent pattern of responsiveness to at least one child in her care. The other teacher, Teacher Z, consistently exhibited an inconsistent pattern of responsiveness to at least one child in her care.

Teacher Y exhibited an inconsistent pattern of responsiveness characterized by disengagement at times and engagement at other times. During periods of disengagement the child would enter the room and Teacher Y, often busy with a classroom task, would not greet the child right away, nor would she approach her to say hello when her task was complete. On more than one occasion, the first interaction between Teacher Y and this child did not occur until well after the child's arrival. One morning when the child had not yet arrived, another classroom teacher told Teacher Y that she was going to check in with the front desk about her absence. A few minutes later the child enters the classroom holding her teacher's hand. Upon the child's arrival,

> Teacher Y does not greet or otherwise acknowledge her presence in the classroom. The other classroom teacher takes the child for a diaper change, during which she stands up looking out over the glass partition. The teacher is standing in the carpet area nearby but does not interact with or greet the child. The other classroom teacher settles the child into her chair for breakfast. The teacher, who is still on the carpet with the other children, asks the other teacher to switch with her (other classroom teacher was sitting with child at the table) because she has not eaten breakfast yet. The teacher walks over to the food tray, prepares her food, sits down next to child and says "hi!" The child just looks at her. When the teacher asks the child for a hug, she just stares at her. The teacher reaches over and gives the child a hug, but she does not respond or reciprocate it.

On this occasion ten minutes passed before the primary teacher initiated a hello, thereby acknowledging the child's presence in the classroom. On other similar occasions the teacher was unresponsive to the child's attempts to initiate a greeting.

> The teacher enters the classroom, the child looks over and the expression on her face brightens. The teacher does not interact with her, but the child keeps her eye on her and then says, "Hi!" in a quiet, but happy voice. The teacher, talking with another teacher, does not respond. The child, still watching her primary teacher then waves her hand, but still no response. The child tries again and says "Hi" one more time, but still no response.

However, a few weeks later on another occasion, the following interaction was observed between Teacher Y and this child.

> The teacher enters the room. The child looks over at her and her expression brightens. She tracks her primary teacher's movement from the door to the cubby area and then she says "hi!" in a quiet, but happy voice. The teacher – busy talking to another classroom teacher – does not respond. The child, still watching her teacher, waves hello, but she is still talking and gives no response. The child, still looking at her primary teacher, says "hi" again but this time more softly, which is again met with no response as her primary teacher is still talking to the other classroom teacher. Finally, when she is finished with her conversation the teacher runs excitedly over to the child, takes the child's head into her hands and brings her face to rest on the child's head and nuzzles her for a moment while talking to her. The child gives big smiles and bounces up and down in her chair excitedly. The teacher walks away to prepare food and the child goes back to eating.

Over time, a pattern of interaction characterized by varying degrees of teacher responsiveness, or engagement was likely among the factors that contributed to the dyad's insecure AQS score at T1. However, T2 AQS administration revealed a score in the secure range, although the second assessment was based on this child's interactions with another classroom teachers from the same classroom, as Teacher Y was no longer employed at the agency.

In contrast to Teacher Y, Teacher Z consistently exhibited disengaged insecure attachment behaviors. Teacher Z, similar to Teacher Y, was frequently observed entering the

classroom without acknowledging the child's presence, even when he approached to greet her upon entry.

> Teacher Z enters the room from her lunch break. The child notices and crawls toward her. The teacher does not respond to the child and walks right by him. When the child gets to the spot where she had previously been standing before she walked away he looks around for her and realizes that she is no longer where she once was standing. The teacher is now on the other side of the room talking to another classroom teacher about another child in the room. The teacher takes the other child and sits down with her in a rocking chair. The child goes back to playing and exploring the room. He then approaches the substitute teacher (who was in the room covering lunch breaks), climbs in to her arms, gives her a hug, and sits there in her lap for a minute before going back to playing.

In addition to the lack of acknowledgement of the child upon her entry in to the classroom, Teacher Z was frequently observed missing the child's cues and attempts to engage her in interactions during the routine childcare day. On one occasion after Teacher Z does not appear to notice the child's happy reaction as he watches her walk toward him.

> The child watches as the teacher puts another child down for nap (stands peering over the gate leading into the napping area of the room). The child bounces up and down when the teacher walks toward him. She gives no response to him. She walks to the window near him to close the blinds. The child watches her. The teacher walks away and the child goes back to playing.

On another occasion, "the child sits next to Teacher Z and says, "mama!" and starts making buzzing sound with his lips, a substitute teacher who was helping in the room said, 'You want some attention from (Teacher Z's name).' Teacher Z continues feeding the child in her arms and does not pick up on the cue from the child or the cue from the substitute teacher that he could use a little of her attention." In all three of the above examples, the child's attempts to interact with his primary teacher (crawling to her when she enters the room, waiting for her next to the cribs, and calling to her and making noises) are dismissed.

On one occasion when Teacher Z did respond to the child, it was only to redirect his behavior and she did so in a manner that was not developmentally appropriate. Later, while she does not prevent him from crawling in to her lap, she does not attempt to engage him in play and instead continues with the task at hand.

> The target child plays with another child and gets too close/rough. The teacher signs and says, "Stop!" The child looks up at her (does not appear to understand) but continues the behavior. The teacher gets up to separate him from the other child and sits back down where she had previously been sitting cutting construction paper. The child crawls over and in to her lap. She allows him to sit there for about a minute but does not interact with him while he is there and then removes him for her lap, gives him a little push toward the other children and toys. The teacher goes back to cutting construction paper.

Over time, a pattern of interaction that included consistent teacher disengagement in response to the child's attempts to interact would have likely resulted in an AQS score in the insecure range at both time points. However, approximately six weeks after this child's enrollment his primary teacher assignment was switched to the other classroom teacher. The interactions that characterized the new teacher-child dyad were more consistently sensitive and responsive, a factor that likely contributed to an AQS score in the secure range at T1 and T2.

Disordered Teacher Attachment Behaviors. The types of behaviors (e.g., neglect and abuse) that lead to disordered attachment behavior in children were not observed among the teacher-child dyads in any of the childcare classrooms that participated in the current study.

Chapter Summary

Child behaviors observed over the three-month observation period included secure, insecure, and disordered attachment behaviors. Secure attachment behaviors included tracking, close proximity, and proximity-seeking as well as the child initiating and responding positively

to interactions with the primary teacher. Insecure behaviors included both avoiding and ignoring, which were mostly characterized by stopping short, or re-routing approach behaviors. Disordered behaviors included those consistent with both non-attachment and secure-base distortions. Non-attachment behaviors observed in the study sample included indiscriminate behavior, social isolation, emotional withdrawal, dysregulation, and failing to seek help/comfort when necessary. Features of secure base distortions present in the study sample included clinging, hyper-vigilance, no/inhibited exploration, and aggression toward the primary teacher.

Teacher behaviors observed over the twelve-week observation period included secure and insecure attachment behaviors. Secure teacher attachment behaviors included consistently sensitive and responsive care giving as well as interactions that communicated positive regard for the child. However, a range in the quality of secure attachment behaviors was observed across teachers such that some teachers showed higher quality attachment behavior patterns. Insecure attachment behaviors included intrusiveness and disengagement. Intrusive behaviors were only observed occasionally among a small sample of teachers and were embedded in overall positive teacher-child interactions wherein the teacher was observed to be missing child cues. Most importantly, instances of teacher intrusiveness were rare and did not define the teacher-child relationship pattern. Disengaged teacher behaviors were observed in a small sample of teacher-child dyads as well. Patterns of disengagement included inconsistent engagement wherein the teacher was engaged a times, but disengaged at other times as well as disengagement that was consistently present and largely defined the teacher-child interaction pattern.

CHAPTER 5. TEACHER-CHILD ATTACHMENT BEHAVIOR TRENDS AND PATTERNS OVERTIME

First, this chapter begins by describing the trends and patterns of teacher and child attachment behaviors overtime across the eight teacher-child dyads for which at least six weeks of observational data were collected. Then, this chapter concludes by addressing part two of the first research question for the six (T1) and seven (T2) teacher-child dyads for whom AQS data were collected[7]: How is the attachment relationship between primary childcare teacher and children organized at 3- and 6-months after start of services as measured by the Attachment Q-Sort?

Teacher – Child Attachment Behavior Trends

Secure Attachment Behavior Trends. The most frequently observed secure attachment behavior trend across all eight teacher-child dyads was an initial low frequency of secure attachment behaviors in the early weeks of care that gradually increased over time. This trend of steady secure attachment behavior growth over time was observed in five (63%) teacher-child dyads. Two (25%) teacher-child dyads initially exhibited a higher initial frequency of secure attachment behaviors that gradually declined over time. One (13%) teacher-child dyad exhibited a stable frequency of secure attachment behaviors with little variation overtime. See Figures 2, 3 and 4.

Insecure Attachment Behavior Trends. The most frequently observed insecure attachment behavior trend across all eight teacher-child dyads was a low and steady frequency of insecure attachment behaviors overtime. Seven (87%) of the eight teacher-child dyads showed a low and steady frequency of insecure attachment behaviors over time. One teacher-child dyad

[7] In order to be considered a reliable and valid measure of attachment security the AQS was only administered in teacher-child dyads where the child had been enrolled for at least eight weeks.

exhibited high initial frequencies of insecure attachment behaviors that gradually declined over time. See Figures 5 and 6.

Disordered Attachment Behavior Trends. The most frequently observed disordered attachment behavior trend across teacher-child dyads was a low and steady frequency of disordered attachment behaviors over time. Seven (87%) of the eight teacher-child dyads exhibited a low and steady pattern of disordered attachment behaviors overtime. One teacher-child dyad exhibited a moderate initial frequency followed by a gradually declining frequency of disordered attachment behaviors over time. See Figures 7 and 8.

Teacher – Child Attachment Relationship Development Patterns

Combining secure, insecure, and disordered attachment behaviors, four distinct patterns of teacher-child attachment relationship development emerged from the data. The most frequently observed teacher-child attachment relationship development pattern was exhibited in four teacher-child dyads including the following children: Grace, Brielle, Emmett, and Jacob. It was characterized by an initial low frequency of secure attachment behaviors that steadily increased over time coupled with low and steady frequencies of insecure and disordered behaviors over time. See Figure 9.

Three other teacher-child attachment relationship development patterns emerged overtime. One of these attachment relationship development patterns was observed in one teacher-child dyad (Jason) and was characterized by a moderate and steady frequency of secure attachment behaviors coupled with low frequencies of insecure and disordered attachment behaviors over time. The second teacher-child pattern was observed in one teacher-child dyad (Eliana), and was characterized by high initial frequencies of secure attachment behaviors that

steadily declined over time coupled with low and steady frequencies of insecure behaviors and low-moderate but declining frequencies of disordered behaviors. The third teacher-child attachment pattern was observed in one teacher-child dyad (Jonah) and was characterized by no initial but gradually increasing frequency of secure attachment behaviors with high initial but gradually declining insecure and disordered attachment behaviors.

Teacher-Child Attachment Relationship Quality

Attachment Security. At T1, after ten to twelve weeks of enrollment in the therapeutic childcare program, eighty-three percent (n=5) of the teacher – child dyads whose attachment security was assessed using the AQS had a correlation coefficient equal to or greater than .33, the cut-off used to determine attachment security. At T2, after six to nine months of attendance, eighty-five percent (n=6)[8] of the teacher – child dyads received a correlation co-efficient equal to or greater than .33. At each time point only one teacher – child dyad scored below the .33 cutoff, placing these dyads in the insecure range of attachment quality.

The mean attachment security score for the six teacher – child dyads assessed at T1 was 0.55 (SD=0.22; range=0.29 to 0.86) and 0.61 (SD= 0.26; range=0.07 to 0.87) for the seven teacher – child dyads assessed at T2. Of the six teacher – child dyads for which two time points of data were collected, 67% (n=4) showed attachment security score increases between T1 and T2 administrations. Score increases ranged from 0.1 to 0.39. The remaining 33% (n=2) showed AQS score decreases that ranged from -0.01 to -0.64. See Table 5.

Attachment Organization. Two of the six attachment organization subscales identified by Howes and Ritchie (1999) were represented in the current sample of teacher – child dyads:

[8] Sample size increase from six to seven teacher – child dyads due to late enrollment of a child, precluding the T1 AQS from being administered.

secure and near secure. There were five teacher – child dyads classified as secure (M=0.60; SD=0.20; range=0.34 – 0.86) and one classified as near secure at T1 (r=0.29). There were six teacher – child dyads classified as secure (M=0.70; SD=0.11; range=0.58 – 0.87) and one classified as near secure at T2 (r=0.07)[9]. Therefore, according to the attachment organization subscales created by Howes and Ritchie (1999), all of the teacher – child dyads at both T1 and T2 showed either secure or near secure attachment organizations. See Table 6.

Secure teacher – child dyads were characterized by harmonious interactions as well as secure base and/or comfort seeking behavior at both T1 and T2. Near secure teacher – child dyads showed a slightly different pattern and were characterized by either harmonious interactions, or comfort-seeking behavior at T1 and T2. None of the teacher – child dyads showed evidence of avoidant, resistant, avoidant/resistant, or unclassifiable attachment organizations at T1 or T2.

Chapter Summary

Teacher-child attachment behaviors tracked over time indicate the following trends in secure, insecure, and disordered behaviors: 1) the majority of teacher-child dyads initially showed lower frequencies of secure attachment behaviors that steadily increased over time, 2) the majority of teacher-child dyads showed low initial and steady frequencies of insecure attachment behaviors over time, and 3) the majority of dyads showed low initial and steady frequencies of disordered attachment behaviors over time.

From these trends in teacher-child attachment behaviors over time, four distinct teacher-child attachment relationship patterns (combining secure, insecure, and disordered attachment

[9] The teacher-child attachment relationships classified at T1 and T2 as near secure using the attachment organization subscales were classified as insecure using the AQS.

behaviors) emerged. The most common teacher-child attachment relationship pattern across all of the dyads was characterized by a steady increase in the frequency of secure attachment behaviors over time coupled with low and steady frequencies of insecure and disordered attachment behaviors over time. This pattern parallels the attachment behavior development of non-maltreated infants and toddlers and provides support for a sensitive period in attachment relationship development during the first twenty-four months of life.

Other patterns included: 1) moderate and steady frequencies of secure attachment behaviors coupled with low and steady frequencies of insecure and disordered attachment behaviors over time, 2) a high frequency of secure attachment behaviors that decreased over time coupled with a low frequency of insecure and disordered attachment behaviors that remained relatively steady over time, and 3) no initial and gradually inclining secure attachment behaviors coupled with high initial and gradually declining frequencies of insecure attachment behaviors and moderate initial and gradually declining disordered attachment behaviors over time.

At the end of the three-month structured attachment behavior observation period (T1) five out of the six teacher-child dyads scored in the secure range on the AQS. Six months later, at T2, six out of the seven teacher-child dyads scored in the secure range.

CHAPTER 6. TWO TEACHER-CHILD ATTACHMENT RELATIONSHIP PATTERNS OVER TIME

This chapter presents two case studies that each represent a different pattern of teacher-child attachment behaviors observed across teacher-child dyads: 1. Zoe (teacher) and Emmett (child), and 2. Jessica (teacher) and Eliana (child). These teacher-child dyads were chosen because their comparison provides an interesting juxtaposition on several levels. First, while both

children were referred for childcare services by the same referral agency (ESA) and at entry both parent-child attachment relationships were characterized by under-involvement, Emmett's parent-child attachment relationship met criteria for disordered attachment and Eliana's met criteria for grossly impaired attachment. Furthermore, at entry, these children represented opposite ends of a continuum of exposure to psychosocial and environmental stressors. With a total of 13 at intake, Emmett was exposed to the highest quantity of psychosocial and environments stressors across the study sample. In contrast, Eliana was exposed to a total of seven, the lowest number of psychosocial and environmental stressors indicated at intake.

Secondly, the teacher-child attachment patterns exhibited across these dyads were again in contrast to one another. Emmett's attachment relationship pattern with his primary teacher, Zoe, was characterized by low levels of secure attachment behaviors that increased steadily over time and insecure/disordered behaviors that remained relatively static over time. On the other hand, the attachment relationship pattern exhibited by Eliana and her primary teacher, Jessica, was characterized by high levels of disordered behaviors that decreased over time and were replaced with more frequently secure attachment behaviors.

Zoe and Emmett's Steady Growth of Secure Attachment Behaviors

Case Summary and Interpretations. At intake, Emmett's parent-child relationship was classified as under-involved with a PIR-GAS score of 38, characterizing the attachment relationship as disordered. Emmett's parents reported exposure to 13 of the 70 psychosocial and environmental stressors including eight of the most common (poverty, homelessness, inadequate social support, parental substance abuse, parental mental illness, CPS involvement, parent without high school diploma, and child hospitalization). His family was referred for childcare

services by the ESA. Teacher-child dyad, Zoe and Emmett, were observed over the course of 11 weeks. This dyad is being utilized in the following case study to highlight the most common (n=5) attachment behavior pattern observed among the study sample population: Steady growth of secure attachment behavior as well as low and static levels of insecure and disordered behaviors overtime most notably characterized this attachment behavior pattern.

In week one, the secure attachment behaviors in which Emmett primarily engaged included visual check-ins with and visual tracking of as well as close proximity to his primary teacher, Zoe. These secure attachment behaviors continued through week two and were expanded upon during week three by proximity-seeking behaviors in times of distress. Zoe and Emmett's attachment relationship continued to be characterized by secure attachment behaviors throughout the eleven-week observation period. By his fifth week in care Zoe and Emmett's interactions were mostly characterized by positive affect and happy vocalizations. These interactions tended to have a playful and silly quality. A recurring theme and another primary feature that continued to define the relationship from week five and beyond was physical affection toward Zoe that was initiated by Emmett. Refer to Figure 9 for Zoe and Emmett's attachment relationship pattern.

Interestingly, week five also appeared to be a turning point for the dyad in relation to Emmett's aggressive behaviors toward Zoe as well as physical affection between the dyad. After a spike in aggressive behaviors observed during week four, a gradual decline of aggressive behaviors is observed over the course of weeks six and seven (see Figure 9). Similarly, Zoe's last mention of Emmett's aggressive behavior toward her occurred in week seven. It is also during week seven that a spike in secure attachment behaviors between Zoe and Emmett is observed,

which is followed by a more gradual incline over the course of the next four weeks, rounding out his eleven-week observation period.

Emmett was first observed engaging in aggressive behaviors with Zoe during his second week in care. Similar behavior continued to occur throughout weeks two through six, spiking in week four followed by a gradual decline and ending in week eight. Beyond week seven aggressive behaviors were not observed, nor were they noted by Zoe. It is interesting to note that while a decrease in Emmett's aggressive behaviors was observed between weeks four and five, it is during his fifth week in care that he was first observed initiating physical affection with Zoe. Emmett's aggressive behaviors during weeks two through seven appeared to serve two separate purposes: first, to convey his angry emotions and later, to test her limits. During week two, the first time Emmett is observed being aggressive with Zoe, he swatted her in the face on two different occasions during which he appeared to be genuinely upset by his circumstance. Since Zoe was the one to intervene with him and, as such, she was naturally on the receiving end of his swat. Between weeks three and five, Emmett's aggressive behaviors including throwing toys, screaming loudly, or swatting Zoe included him looking up at her with a smile on his face in a provocative manner. In these instances of aggression it seemed as though he was testing her limits and perhaps provoking her to aggress toward him in response. After a few weeks of not getting an aggressive response in return, Emmett's aggression gradually declined and beginning in week five is increasingly replaced by displays of physical affection. This shift from aggression to physical affection suggests that he was able to begin trusting Zoe and allowing the relationship to move forward.

Aggressing toward a primary care giving adult in this manner during infancy is not typical. Given the aggression Emmett showed toward Zoe in the classroom as well as instances

of aggression reported in Zoe's notes it is likely that he has been exposed to aggression in the home environment. On one occasion Zoe reported in her notes that Emmett and his older brother, who also attended the therapeutic childcare center, engaged in swatting when they saw one another during a fire drill. Zoe's notes stated, "Emmett saw his brother in the hall during the fire drill and they swatted at each other." It is not uncommon for siblings to experience the occasional spat that leads to physical altercation, particularly during early childhood when appropriate self-assertion and language skills are less well developed. Given the likelihood that the interaction between Emmett and his brother was brief (as the note indicated that they saw one another in the hall, likely as their classrooms exited the building) it is unlikely that they had enough time to have a spat that then led to a physical altercation. It is more likely that the brothers initiated swatting almost as a greeting, making it seem like aggression is a more commonplace behavior in between them. Furthermore, case file notes indicated that a staff member from the present childcare agency filed a CPS report shortly after the family was enrolled for services after witnessing the mom drag her daughter across the floor by her arm lying face down. Taken together, these incidents suggest that Emmett has likely been exposed to aggression in the home environment.

It is also possible that Emmett's aggression might very well be an effective way to get the attention from parents that children his age so desperately crave and need. Remembering that Emmett's is the family of five children living in a hotel room, his dad working nights to support the family and his mom living with chronic mental and physical illness and receiving treatment for substance abuse, gives cause for concern for how involved and engaged Emmett's parents are able to be with their children. In addition, given Emmett's "under-involved" parent-child relationship diagnosis at intake and the fact that the family has been involved with CPS and two

of the older children have been removed from their care as a result of substantiated reports of neglect in the past suggests that there may be low levels of parental involvement and engagement overall. Therefore, Emmett may have developed this negative attention-seeking style of interaction with his caregivers to initially get attention from parents that, given their current situation, may be a limited resource in the family.

At T1, Zoe and Emmett scored in the secure range of the AQS. However, at T2 Zoe and Emmett scored in the insecure (but "near secure") range. It is important to note that Emmett's attendance had been sporadic in the two months prior to T2 AQS administration and that he was absent from care for a full month prior. Unfortunately, the reason for his absence is not known. Observation notes during T2 AQS administration suggest that many of Emmett's aggressive behaviors seen shortly after initial enrollment were again present in the dyad nine months later. The following observation was noted during T2 AQS administration:

> Zoe tells Emmett that breakfast is all done and he begins to fuss. Zoe is bent down next to him and explains that he has three more seconds to finish eating. When three seconds are up and Emmett continues eating, Zoe reminds him again and says she's going to help him is he can't do it on his own. Emmett ignores, Zoe takes his bowl and he begins to fuss. Zoe helps Emmett out of his chair, Emmett continues to fuss and falls to the floor in a tantrum. Zoe scoops him off the floor and holds him. Emmett slaps Zoe in the face *hard.*

After a month of sporadic attendance followed by nearly a month of consistent absence it appeared as though the dyad was back to square one.

Emmett's Secure Attachment Behaviors

Visual Tracking and Proximity-Seeking. During his first week in care Emmett was primarily observed engaging in visual check-ins and close proximity with his primary teacher, Zoe. On his first day in care Emmett appeared shy and almost timid and spent the better part of the morning hours looking down and actively avoiding eye contact with everyone, including his

primary teacher. In the following example, shortly after being dropped off in the classroom by his older sister he avoids Zoe's attempts to engage him while they sit at the table eating breakfast.

> Emmett does not look at Zoe who is sitting next to him. Then she moves so that she is sitting in front of Emmett, he looks at her a few times as she eats, but largely avoids eye contact when Zoe tries to interact with him. After a few minutes, Emmett gives little, shy smiles in response to Zoe's silly behavior.

Observation notes indicated that it took the remainder of the day before Emmett began to appear comfortable with the other classroom teachers as well as children. By the end of the day, Emmett "joined in boisterous play with his peers and was observed smiling, laughing, and making loud, happy vocalizations."

Beyond his first day in care Emmett continued to engage in visual checking-in as well as visual tracking and close proximity with Zoe. His visual check-ins during his first week in care were quickly and uniquely (no other child was observed engaging in quite this same behavior) accompanied by happy vocalizations. In one example of this Emmett is playing on the slide with his peers and kept visually checking-in with Zoe, who was in another area of the classroom.

> Emmett is playing on the slide. He stands at the top and makes loud, happy grunts while looking over at Zoe. He continues grunting loudly until she looks over. She looks over at him and smiles. Emmett gives a sly smile and grunts loudly some more.

During his first week in care Emmett was also observed engaging visual tracking as well as visual checking-in. At snack one day, Emmett is observed tracking Zoe as she moves around the classroom helping another child. Emmett also engaged in close proximity wherein he approached Zoe but did not engage with her. On one occasion, "he was observed playing on the carpet with another child and Zoe. When Zoe moves to another area of the room to talk to another staff

member, Emmett notices and runs over to where Zoe is standing." On another occasion Emmett notices that Zoe is reading book with another child. "Emmett walks over, grabs a book from the nearby bookshelf and sits down next to Zoe."

During his second and third weeks in care Emmett continued to engage in visual check-ins with vocalizations and visual tracking as well as close proximity behaviors. On one occasion Emmett engaged in visual tracking in conjunction with close proximity by watching as Zoe prepares to leave the classroom and then running up to her with a big smile on his face.

> Zoe puts on her coat, walks toward the door, is getting ready to leave for van loading. Emmett watches her for a moment and then runs over to her with a smile on his face. Zoe redirects him to the carpet area to play. He goes back to the carpet area and goes back to playing after watching Zoe leave the room.

His visual check-ins continued to be characterized by silly vocalizations as well as a playful, attention-seeking/limit-testing quality. On one such occasion while sitting at the table eating lunch, Zoe is standing nearby and Emmett watches her until she walks away. As soon as she is sitting back down at another table,

> Emmett stands up while eating lunch, smiles. Zoe notices, comes over to him and asks him to sit. He looks at her, smiles, and sits down. Zoe walks away. Emmett stands back up with a big smile on his face, looks at Zoe. She walks back over to help him sit down, sits down beside him. Zoe talks to Emmett, asks him in a silly voice what he thinks he's doing. Emmett looks up at her and smiles. He remains seated and goes back to eating. Zoe gets up, he pops up out of his seat again and smiles at her.

During his third week in care Emmett added proximity-seeking behavior to his secure attachment behavior repertoire. In one example of this, he was observed seeking out Zoe as he cried before nap. "Emmett is upset at the beginning of nap, cries and crawls into Zoe's arms. Zoe places him back on his mat, rubs his back, and he cries for another minute or so then quiets down

before falling asleep." Emmett continued to engage in visual check-ins, visual tracking, close proximity, and proximity-seeking secure attachment behaviors over the course of his next eight weeks in care.

Positive Interactions. During his first week in care Emmett was observed engaging in positive interaction with his primary teacher, Zoe. These interactions mostly included instances of positive affect; however, joint attention through pointing and joint engagement through sharing were also observed. In one example of positive affect, the children are gathered around the water table playing before lunch. "Emmett splashes Zoe with water and smiles. Zoe smiles back." Later, at lunch, "Emmett smiles, laughs, and squeals loudly when Zoe acts silly."

Positive interactions with Zoe continued to include similar instances of positive affect, joint attention, and joint engagement throughout his first four weeks in care. During his fourth week in care Emmett is sitting at the table eating breakfast when Zoe calls his name. In response, "he looks at her and gives a loud roar while lifting his arm straight up in the air and smiles." By this point the interactions that characterize Zoe and Emmett's relationship have a silly, rambunctious quality that continue to characterize their interactions through week eleven. By his eleventh week in care the playful and rambunctious way of getting Zoe's attention remained unchanged.

> Zoe is helping other children. Emmett is sitting at table alone. Emmett vocalizes – calls out in a loud-ish manner that gets no response from Zoe. A minute or so later he positions his body to stand up in his chair – one foot on the chair's seat, the other foot about ready to join. Zoe notices and reminds him to stay seated in his chair. Emmett hesitates a moment with a mischievous grin on his face but then puts his foot back down and sits in his chair. Zoe comes over and scoots his chair closer to the table. Emmett says "mama!"

By his fifth week in care Zoe and Emmett's attachment relationship began to exhibit child-initiated displays of physical affection. In one example of this, "after breakfast Emmett walks to the carpet area and heads straight for Zoe, who is sitting down. He crawls into her lap, Zoe embraces him in a hug and Emmett smiles." On another occasion during his seventh week in care Emmett, "sits in Zoe's lap for most of the 15 minute music time session. Emmett cuddles with her some of the time and plays with toys or other children who walk over to them, but remains on Zoe's lap." Consistent with observation notes, week four was the first time that Zoe's daily notes on Emmett mentioned him showing physical affection toward her. By week six Zoe began to mention Emmett's desire for physical affection from teachers and toward peers. In one note she wrote, "Emmett wanted hugs from teachers during outside time." The following day she noted that, "Emmett was affectionate with his peers and was giving hugs during morning carpet time." Prior to week six no mention was ever made of Emmett's attempts to solicit hugs from teachers or peers.

Zoe is also observed continuing to initiate physical affection with Emmett. When she prepared to briefly leave the classroom she said, "'Bye! Be right back!' and blows kisses to Emmett. He smiles as she talks to him and blows more kisses." By his eleventh week in care Emmett's adoration of Zoe is almost palpable, as he watches her with "stars in his eyes" after a brief interaction.

> Zoe stands at door for a moment while she talks to other teachers before leaving the classroom. Emmett looks over at Zoe and makes a quick chirp and smiles at her. Zoe interacts with Emmett, tells him "bye bye" in animated, exaggerated way. He gives big smiles and has stars in his eyes as he watches her leave the room. Emmett holds his gaze on door for a moment after Zoe leaves and then turns to his food and continues eating.

Beginning in week five Zoe and Emmett are observed engaging in complex interactions that incorporate multiple elements of secure attachment behaviors including both tracking and positive interactions. In one example of this, an interaction between Zoe and Emmett included visual check-in, positive affect, physical affection, and communication.

> Zoe helps another child on the carpet. Emmett looks at her and makes a quick happy-sounding chirp to get her attention. He smiles when she looks over. Zoe smiles back and says "hi" from where she's standing across the room. She comes over a minute or so later to give Emmett a hug and talks to him for a moment. Emmett smiles.

This trend of more complex social interactions that included multiple elements of secure attachment behavior continued for the remainder of the eleven-week observation period.

Emmett's Disordered Attachment Behaviors

Secure Base Distortions – Aggression. Evidence of secure base distortions began in Emmett's second week of care and continued to be observed through his sixth week in care. During week two there were multiple instances of either verbal or physical aggression initiated by Emmett and directed toward teachers. On one occasion,

> Emmett throws toys, another classroom teacher tells him and signs "stop." Emmett begins screaming loudly in a frustrated, angry tone. (he does this twice). Zoe picks him up, holds and sways with him from side to side to help calm him down. Emmett then gives Zoe a swat in the face.

Interactions similar to this one continued to occur and were corroborated through Zoe's notes as well. In week three Zoe noted that Emmett was "swatting teacher during morning carpet time. He was hard to calm down." During his fourth week in care he was observed growling and screaming at naptime before falling asleep. After nap and during diaper change on the same day he was observed screaming and growling again. Observation notes collected during his fourth

week in care also described occasions when Emmett would smile while hitting his primary teacher.

> Zoe takes Emmett to diaper change. Emmett has big smile on face. Once standing on the changing table and facing Zoe, he swats at her, smiles, and watches her. Zoe says, "I don't like that". Emmett swats at her again with a smile on his face. Zoe tries to redirect him with singing, but he attempts to swat her two more times with a smile on his face.

After this diaper change Emmett sits for a few minutes playing on the carpet alone before walking over to Zoe with a toy and smiling at her. Zoe was in the tiled area of the room and directs Emmett back to the carpet. Right afterward,

> Emmett throws his toy down on the floor – lands with a loud crash – Zoe looks up and approaches him. Emmett has big smile on his face, runs away from her. Emmett does this (throws toy, looks at Zoe, smiles, runs away) every time Zoe returns to the tiled area of the room to help another child (two more times). The third time when Zoe does not follow after him when he runs and begins to scream loudly with smile on his face. Zoe appears frustrated with Emmett's behavior so another classroom teacher intervenes and sits with him in the calm area of the room. Emmett whines and cries and screams, looks up and swats the other teacher in the face. After sitting with him for a few minutes, he is allowed to get up and play. The first thing he does is grab a toy and throw it, smile. The other teacher says "stop" in firm voice and then shows him how to be gentle with the toys. This teacher shadows him at play for the next few minutes, dances with him and talks to him.

During his fifth week in care while he was still observed being aggressive toward Zoe, a shift was beginning to take place.

> Zoe takes Emmett for a diaper change. Emmett watches the other children as play on the carper area at first (he is standing up, clutching the glass partition, looking out over the top). He then turns around looks at Zoe and gives her a gentle touch! Zoe praises him in an enthusiastic if not somewhat shocked voice for giving her the gentle touch. He responds by giving her a few more gentle touches, gets a little too aggressive on the last one, but Zoe catches the swat in her hand before it lands on her body. Zoe reminds him about using gentle touches in a gentle, calm voice. Emmett gives a quick yelp (as if in protest) and looks away.

Unfortunately, a few days later during week five, the following interaction between Zoe and Emmett was observed.

> Zoe enters the classroom, she is the first teacher to arrive in the room and is inundated with greetings/questions from new volunteer and visitors who had arrived prior to her. She hits the ground running and does not greet/approach Emmett upon entry ... [a short while later] Emmett is at play with his peers when he runs over to Zoe and jumps into her lap. He sits there for a minute while she talks with visitors in the room. Emmett then swats at her. Zoe says "I don't like that" and Emmett gives a quick protest chirp. Zoe then redirects her attention to him, they sit on carpet together interacting. He swats at her two more times during this interaction ... [Later] Zoe is busy helping another child and talking to visitors in tiled area of the room ... Emmett looks in her direction and watches her a few times. Once Zoe is back on the carpeted area and Emmett notices, he approaches her and gives her a swat ... Later, Emmett walks up behind Zoe and hurls a stuffed animal at her head. She acknowledges that he seems angry and redirects him.

Zoe also noted aggressive behavior from Emmett during week five, saying that he was "aggressive with peers and teachers several times throughout the day ... was oppositional at the beginning of nap."

Fortunately, by week seven Emmett's acts of physical aggression toward Zoe were no longer observed for the remainder of the eleven weeks during which he was observed. Zoe mentioned in her notes during weeks seven through nine that Emmett exhibited aggressive behaviors toward the teachers; however, this was mentioned in passing and was not the focal point of the note. During this time Zoe also reported an increase in Emmett's pro-social behavior toward peers. In a note written during week nine, Zoe wrote, "Emmett was gentle with his peers several times throughout the day and asked for a 'turn please' with a toy during morning carpet time." The following week Zoe indicated that Emmett had been "very affectionate with a specific peer throughout the day and used a calm voice during the morning and was gentle with everyone around him."

Jessica and Eliana

Case Summary and Interpretation. At intake, Eliana's parent-child relationship was classified as under-involved with a PIR-GAS score of 15, characterizing the attachment relationship as grossly impaired. Eliana's grandmother reported exposure to 7 of the 70 psychosocial and environmental stressors including four of the most common (poverty, parental substance abuse, parental mental illness, and parent without high school diploma). Her family was referred for services by the ESA. Teacher-child dyad, Jessica and Eliana, were observed over the course of six weeks. Jessica and Eliana were observed for six weeks. The attachment relationship pattern that developed between teacher-child dyad, Jessica and Eliana, is presented as a point of comparison. In contrast to Zoe and Emmett, Jessica and Eliana's attachment pattern was characterized by high initial frequencies of secure attachment behaviors followed by a decrease in secure attachment behaviors over time (n=2).

Early on in her care, in addition to normative secure attachment behaviors, she exhibited secure attachment behaviors that differed in their frequency and intensity, giving them a more disordered quality. Disordered presentation of secure attachment behaviors, which in Eliana's case included clinging, hypervigilance, and emotional dysregulation, represented secure base distortions and were often observed in the presence of strangers as well as during times of separation from her primary teacher. Stranger and separation anxiety are not uncommon during infancy; however, Eliana's presentation was extreme. She was observed exhibiting "freezing" behaviors (when Jessica was not present) as well as difficulty co-regulating with Jessica (when she was present) while in the presence of strangers.

Observation notes collected over the course of her first six weeks in care indicated that over time Eliana was better able to self- and co-regulate in the two circumstances (i.e., absence

of primary teacher, presence of stranger) that initially caused emotional distress. She appeared better equipped to cope with temporary separation from Jessica and was able to remain engaged in her environment with only occasional visual and physical check-ins, rather than appearing preoccupied with her primary teacher's activities and whereabouts. While she also appeared better able to co-regulate when strangers entered the classroom, her ability to do so appeared less well developed over time. Thus, in her case a decline in secure attachment behaviors was positive.

This is reflected in figure 10, which depicts a sharp decline in secure attachment behaviors from weeks one to four, indicating that Eliana began to adjust her attachment behaviors to her new environment. The spike observed in week five is likely due to a combination of factors: 1) the presence of normative tracking and proximity-seeking behaviors, and 2) re-emergence of clinging, hypervigilance, and dysregulation in the presence of strangers. Week five was an unusually busy time at the agency due to the holiday season, which resulted in an increase in visits from unknown staff members and other adults. Under the stress of what she likely perceived to be a "dangerous" environment, Eliana employed the attachment strategies – clinging and hyper-vigilance – that she has developed to respond to threat in the environments that have posed danger to her in the past. Eliana's secure base distortions reflect an internal working model that likely developed as a result of a dangerous environment. Based on the content of the intake documents reviewed, visits between Eliana, who was in the full-time care of her maternal grandmother, and her biological mother were terminated at six-months-of-age as a result of her active drug use while Eliana was in care.

In the end, as Eliana became more accustomed to her new environment and teachers, she began to exhibit more normative tracking and proximity-seeking behaviors and exhibit less

clinging, hyper vigilance, and emotional dysregulation. Furthermore, during times of emotional distress she was better able to self-soothe and co-regulate with her teachers during times of emotional dysregulation. Jessica and Eliana's attachment relationship was not assessed at T1, given her short five-week duration in the program at the time of relationship assessment, at T2 Eliana and her new childcare teacher (she moved up to the toddler room between T1 and T2 administration) scored in the secure range on the AQS.

Eliana's Secure Attachment Behaviors

Tracking and Proximity-Seeking Behaviors with a Normative Presentation. Eliana's normative presentation of secure attachment behaviors during early on in care primarily included tracking and proximity-seeking behaviors during routine classroom activities such as mealtime, or play. During routine classroom activities when Jessica was present and accessible, and no strangers were present, Eliana was often watchful of her primary teacher in a normative manner. On one occasion Eliana was sitting in her chair at the table, quietly eating her lunch. She was observed looking up and watching her primary teacher. Shortly thereafter when her primary teacher sat down next to her, she "held her gaze for a few moments" before returning her attention to the food on her plate. When her primary teacher stood up and began moving around the room, Eliana was observed to "turn around in her chair to watch her primary teacher." On another occasion during her first week in care "Eliana watches Jessica for ten seconds or so ... as she interacts with another child."

Over time, Eliana's secure attachment behaviors expanded to include using her primary teacher in a secure base manner by physically approaching to check in with her from time to time during her play.

> Eliana walks to window on other side of the room where she watches other children play outside. After a few minutes she walks back to Jessica ... crawls into her lap and plays. She remains there for a few minutes before getting back up to play near the window again.

Eliana's tracking and proximity seeking behaviors continued to include visual tracking, approaching and reaching out toward her primary teacher, Jessica. In addition, to utilizing Jessica in a secure base manner by checking in with her from time to time throughout the day, she also began to use the other classroom teacher as a secure base as well. In one example during her fifth week in care Eliana approached Jessica for a check in. When Jessica did not respond she approached the other classroom teacher

> Eliana is on the carpet playing when observation began ... Jessica is sitting at the computer doing administrative work. Eliana wanders over to tiled area, stands next to and looks up at Jessica but she does not respond. Eliana remains there for a minute or so before she goes back to the carpet to play ... Eliana grabs a book from the shelf and carries it ... to where the other classroom teacher sits on the carpet. The teacher picks up the book and begins reading it. Eliana watches and listens for a minute before returning to her play.

Shortly thereafter Eliana approaches and watches Jessica again, however the interaction that transpires between the two is minimal. Again, Eliana walked away and approached the other classroom teacher, reaching her arms out to be picked up.

> The teacher picks her up and holds her for a minute or two before putting her back down. Once back on the floor, Eliana stays near her, crawls into her lap and sits with her for a minute or two ... she then wanders back over to the computer area, stands next to Jessica and looks up at her. Jessica looks over at her and runs her hand over her forehead/head and says "hi" but then goes back to her computer work.

Secure attachment behaviors observed early on in her care were normative in their presentation at times. Eliana's normative presentation of secure attachment behaviors during early on in care

primarily included visual tracking and physical approach during routine classroom activities such as mealtime, or play. Observation notes indicated that secure attachment behaviors with a normative presentation continued to increase over time.

Tracking and Proximity-Seeking Behaviors with Disordered Presentation.

Presence of Strangers. In contrast to Eliana's normative tracking and proximity-seeking behaviors, she also exhibited secure attachment behaviors with disordered presentation. Disordered presentation of secure attachment behaviors, or secure base distortions, were often observed in the presence of strangers as well as during times of separation from her primary teacher. On one occasion when a stranger entered the classroom during her first week in care, Eliana was observed crying and fussing and quickly sought refuge with Jessica.

> A staff member [male, stranger] enters the room. Eliana walks over to Jessica and reaches her arms up with a concerned look on her face. Jessica picks her up and [they] sit on the floor together. Eliana [sitting in her lap] begins to cry and looks at the staff member and waves [as if she is waving goodbye or dismissing him – he is standing in the doorway talking to classroom teachers]. Eliana settles down when she is not looking at him but cries again when she looks up and sees that he is still there.

In this example, Eliana was unable to regulate her emotional response (i.e., crying and fussing) despite engaging in proximity-seeking behavior. That Eliana engaged in proximity-seeking behavior indicates that she knows how to use the people in her environment to regulate her emotional response when distressed. However, the proximity-seeking behavior did not have its intended effect, leaving her unable to properly regulate her emotional distress. This example illustrates that early on in her care Eliana did not have the ability to self-soothe in the presence of strangers and while she seeks out a care giving adult to help, she is unable to utilize their presence in a co-regulation capacity.

On one occasion during her first week in care when she was alone in the classroom with an unknown adult Eliana responded by engaging in a freeze response.

> Eliana enters the room with an unknown staff member (male). Her primary teacher is not in the room yet and she is the first child to arrive and the other classroom teacher is not in the room yet either. Eliana stands where the unknown staff member placed her on the carpet [he was previously holding her] and looks around the room and then back again at the unknown staff. He attempts to interact with her using a variety of toys, but she just watches him and does not move from where she is standing. She alternates her gaze between the unknown staff member and looking around the room. Another unknown staff member (female) enters the room with another child and she watches her. The male staff member leaves the room and Eliana watches him go. The unknown female staff member sits down next to where she is standing and reaches her arms out, pulls Eliana on to her lap. Prior to this Eliana had been standing in the same spot for five minutes.

Left in what Eliana likely perceived to be a "dangerous" environment without the presence of her primary teacher, her freeze defense kicked in. Too small to fight, unable to flee, and without the protection of a familiar adult she froze.

During her second week in care emotional dysregulation in response to strangers in the classroom was not observed. This is likely due to the fact that after two weeks in care there were fewer people to whom she had never before been exposed. However, she still appeared to be somewhat wary of now (theoretically) more familiar adults during her third week of care. In one example of Eliana's tracking and proximity seeking behavior in response to a more familiar adult in the classroom, a volunteer attempts to interact with her; however, rather than reciprocating the volunteer's initiation, she keeps a watchful eye on her primary teacher, Jessica.

> Volunteer sits Eliana on a big red therapy ball, rolls the ball around. Eliana fixes her gaze on Jessica across the room. Once she is off of the ball she walks to the area of the room where Jessica is playing with other children and plays with the window covering [within arms reach of her primary teacher]. She watches her on and off, also gazes at the other teacher.

Eliana, who after being in care for two full weeks should be familiar with the volunteer, still appears to be cautious and inhibited around this individual. Had Eliana been more comfortable with the volunteer she would have been able to maintain an interaction with her, perhaps only visually checking back in with Jessica occasionally during the play. While she is able to tolerate the presence and close proximity of the volunteer, she appears unable to interact with her in play. Instead she keeps a watchful eye on her primary teacher to visually check-in, as if she is ready to visually communicate, "You seeing this? Is this ok?" should Jessica ever look over to meet her gaze.

Eliana's response to unknown adults could not be assessed during her third week in care because she was not observed in the presence of strangers. However, teacher notes from her third week in care indicate that she became upset and inconsolable when an unknown adult entered the room. "Midmorning when an unknown teacher came in to the classroom Eliana seemed very upset. She kept looking at the teacher and crying harder." The teacher's description of Eliana's response reflects the emotional dysregulation shown in the presence of strangers during her first week in care.

Eliana's response to strangers during her fourth week in care was mixed. At times she appeared to be at ease with adults other than her teachers entering the classroom; however, at other times she appeared cautious and sought out, or clung to her primary teacher. On one occasion Eliana "turns in her chair to watch as a staff member enters and exits the room to drop off another child." During this encounter she is able to remain calm and is able to re-engage in her activity without delay. However, in juxtaposition to this encounter, later that same day

> A staff member enters the room. Eliana keeps her eye on the visitor and walks toward the other classroom teacher, who is sitting at the computer chair, stays with her for a moment – eye still on the visitor – before walking to the far end of the carpet area where she plays for a moment before walking over to Jessica and stands behind her. She still keeps her eye on the visitor, although at this point her expression is more relaxed, slight curious smile while initially she looked cautious/aware when the visitor entered the room.

Jessica's notes describing this incident tell a similar story. "Midmorning when another adult came in the room that she did not recognize she stayed close to writer. After the adult left the room she seemed to get upset but when held by writer she would calm down." On another occasion during her fourth week in care Jessica's notes indicate that "Eliana seemed a bit unsure during Music Man time, sitting in writer's lap the entire time, and clutching on to writer's shirt.

Similar to week four, during her fifth and sixth weeks in care Eliana did not appear to be particularly fond of unknown adults who entered – and lingered – in the classroom. She continued to easily become emotionally dysregulated, at which point she had a difficult time self-regulating and needs the help of an adult to co-regulate.

> Eliana turns around to look at visitors who enter the room, turns back around to eat when visitors leave. One visitor stands at door talking to one of the classroom teachers and after about a minute of this Eliana – still turned in her seat watching the visitor – begins to fuss and look concerned. The other classroom teacher does nothing to comfort her. A few minutes later a male visitor enters the room and Eliana begins to cry loudly almost immediately. Her crying stops for brief moment when the visitor leaves, but then starts back up again shortly thereafter. The other classroom teacher responds in perfunctory manner by saying "its ok" or "you're ok" and "I see you're upset" in a flat, emotionless almost annoyed tone. Crying continues off and on for four minutes. The teacher continues to give perfunctory, emotionless responses. Eliana walks to her cubby and grabs her coat, cuddles against it, which seems to help settle her down. She then stands by the window for ~1 minute looking out and then walks over to the table where the other children are eating. She stays at table for a brief moment before walking away and wandering around room crying. During this crying spell the teacher talks to her about pictures on the walls – seemingly in an attempt to distract – but this does not work. She continues to cry off and on. The teacher says, "I wish I could play with you right now" again in a perfunctory manner ... Jessica enters the room. Eliana sees her primary teacher but does not move toward her. Instead she just stands where she's at and cries. Jessica approaches, asks her in an empathic voice if she's upset and asks her if she wants her hat

on (is holding her hat and coat). She cries harder and reaches arms up to Jessica to be picked up.

Early on in her care Eliana also exhibited secure attachment behaviors in the presence of strangers that differed in their frequency and intensity, giving them a more disordered quality. During her first week in care despite using proximity-seeking behaviors, which should have helped to relieve some, if not all of her emotional distress, her ability to co-regulate, or utilize Jessica as a self-soothing mechanism, appeared under-developed in response to the presence of strangers. Evidence from observation notes collected during the remaining a six-week period indicated that while Eliana was able to behave in a more relaxed manner as initial strangers turned in to regular classroom fixtures (e.g., volunteers), her response to strangers was mixed. On some occasions the presence of strangers in the classroom did not appear to cause her emotional distress; however, on other occasions her response to strangers signaled similar levels of emotional distress observed during week one. Eliana's normative reactions to "strangers" in her classroom on some occasions might indicate familiarity with those particular staff members, while occasions eliciting clear and strong emotional distress might indicate true strangers, or staff members to whom she had never before been exposed.

This increase in more normative secure attachment behaviors in conjunction with an atypical increase in unknown adults in the classroom during week five accounts for the spike in secure attachment behaviors. Field notes taken during structured observation of attachment behaviors support the trends depicted in the graph.

Limited Access to Jessica. During her first week in care Eliana consistently exhibited a similar proximity-seeking behavior pattern whenever her primary teacher was temporarily absent from, or inaccessible to her in the classroom. Blocked access to the primary teacher occurred

most frequently during the diaper change routine.[10] During her first week in care observation notes indicate that she nearly always followed Jessica to the diaper changing area and waited outside the door for her to return. In her notes Jessica wrote that Eliana "appeared to get upset and cried when this writer was in the diaper area." She would frequently whimper or fuss as she waited for her primary teacher to emerge; however, was typically quickly soothed upon her return.

> After diaper change Jessica places Eliana on the carpet and walks away to wash her hands. Eliana walks back to diaper change area where Jessica is standing. When she comes out of diaper changing area she grabs another child [and goes back inside]. Eliana stands on the other side of the door and fusses quietly. She stands there for a minute or so and then walks away with a concerned look on her face, still quietly fussing/whimpering and walks toward the other classroom teacher ... Eliana attempts to distract herself with toys, but after a minute or so, she returns to diaper change door and remains there until Jessica re-emerges. Jessica picks her up and carries her around for a moment.

Again, Eliana uses her proximity-seeking behavior to help regulate her emotional distress and yet in the early weeks of her time in the program it does not have its intended effect. Despite a less intense emotional response than she exhibited in the presence of a stranger, Jessica's temporary absence still appeared to incite an emotional reaction (whimpering, pacing, waiting outside the door) from Eliana.

During her third week in care Eliana continued to engage in tracking and proximity seeking behaviors. These behaviors continued to include watching, reaching, and fussing. However, the excessive and/or intense tracking and proximity seeking behaviors observed during her first week in care in response to blocked access to her primary teacher were not seen during her third week in care. While it appeared that Eliana was aware of her primary teacher's

[10] In infant classrooms the diaper changing area is completely enclosed and has glass siding that allows teachers to watch over the children while they are changing diapers.

whereabouts in the classroom, she no longer appeared preoccupied to the extent that it prevented her from interacting with her environment when access to her primary teacher was blocked. For example, during her third week in care she was not observed standing outside the diaper changing area fussing or crying. Furthermore, when she did wander over to the diaper area while her primary teacher was changing another child she no longer fussed or cried and appeared to be easily redirected back to her play. Furthermore, once redirected she was able to engage in her environment and was observed occasionally checking in visually, rather than always approaching.

> After diaper change, Eliana plays on carpet while her primary teacher changes another child. She interacts with a substitute teacher and then wanders around room with stuffed animal. She wanders to tiled area of room, first goes to table and then walks toward diaper changing area (where Jessica is with another child) but then turns her attention to the computer chair [located outside of the diaper changing area]. The substitute teacher re-directs her to play on the carpet area where she explores the room and toys. Eliana looks up and over at her primary teacher for a few moments and then goes back to playing.

While she is still observed following her primary teacher to the diaper changing area and/or approaching the changing area intermittently, Eliana is also observed visually checking in with her primary teacher and going back to her activity during periods of blocked access. In the following example she is able to re-engage in eating her snack after seeing that her primary teacher was in the diaper changing area:

> Eliana sits in a chair at the table eating her snack, looks up at the other classroom teacher every now and again (standing next to table). She looks around the room, turns body in chair to see behind her and catches a glimpse of her primary teacher in changing area and then goes back to eating.

Rather than being preoccupied with the whereabouts of Jessica during periods of blocked access during her third week in care, Eliana begins tracking her primary teacher in a normative secure base manner when she is inaccessible. This behavioral trend continues during her fourth, fifth, and sixth week in care. During her fourth week in care Eliana continued to seem less preoccupied with the whereabouts of her primary teacher.

> The primary teacher enters the changing area, Eliana does not appear to notice and continues eating. When she emerges Eliana looks over and watches her as she moves about carpet area picking up toys. She watches her primary teacher on and off throughout snack time. When all finished eating she lifts her bowl up toward her primary teacher and looks at her. She responds by taking the bowl.

In addition to appearing more at ease when access to her primary teacher is blocked, during her fourth week in care she is observed approaching the other classroom teacher as a secure base during times of blocked access. Eliana's ability to do this suggests that she has the capacity to generalize this aspect of her attachment relationship with her primary teacher to other caregivers.

> Eliana looks up when her primary teacher takes another child to diaper change, watches her for a brief moment and then goes back to playing. She plays for a minute or so and then wanders over to the other teacher who holds her for a moment before carrying her back to carpet area to play with another child.

Over time Eliana did appear to be better equipped and able to utilize the emotion regulating benefits of her proximity-seeking behavior when access to Jessica was temporarily blocked. On occasions when Eliana was temporarily separated from Jessica, her emotional distress was typically less intense and she was often able to self-regulate for short periods of time using her proximity-seeking strategy. During times of brief separation from Jessica, observation notes also indicated that she was able to use other emotion regulation strategies, such as seeking out the other classroom teacher, or distracting herself with play. By engaging in these alternative

strategies she was often able to self-regulate for short periods of time between utilizing close proximity to Jessica's whereabouts to co-regulate. Unlike Eliana's ability to self- or co-regulate in the presence of a stranger, her ability to self-regulate during routine separations from Jessica became more well developed during her first six weeks in care.

Chapter Summary

Presenting these two case studies side by side provides an opportunity to explore the variation in this sample of children. The differences and similarities are interesting to note between these particular dyads because they represent the variation that exists in the current study sample. Emmett and Eliana were on the high and low ends of the Psychosocial and Environmental stressors range, respectively. Despite being on opposite ends of this range, they both entered care with behaviors that were consistent with secure base distortions. However, their presentation differed drastically. Emmett showed secure base distortions characterized by dysregulation and aggression toward his primary teacher. Eliana exhibited secure base distortions characterized by clinging, hypervigilance, and emotional dysregulation (extreme separation and stranger anxiety). Both showed a positive trajectory of secure attachment behaviors as time went on and a decrease in behaviors characterized by secure base distortions.

CHAPTER 7. THE CLASSROOM ENVIRONMENT

This chapter addresses both parts of research question two: What does the structural quality of the childcare offered to infants and toddlers at this center? What is the process quality of childcare offered to infants and toddlers at this center? First, results pertaining to indicators of

structural quality including teacher-child ratio, classroom group size, and teacher education and training are presented. Then, results pertaining to indicators of process quality including exposure to materials and activities (ITERS) and teacher-child interactions (CLASS) are presented.

Structural Quality: Ratios and Classroom Group Size

Teacher-Child Ratio. Teacher-child ratio and group size standards employed by the childcare agency fall below the state licensure standards (i.e., 1:4 for infants and toddlers). The teacher-child ratio standard for children enrolled in infant or toddler classrooms (serving children between 1 and 24 months) is 1:3. The group size standard for classrooms serving infants (1-18 months) was 6 children, while the group size for classrooms serving toddlers (18-24 months) was 9 children.

However, the observed (measured at one time-point during the CLASS administration) average teacher to child ratio and group size was well below both state- and agency-level standards. The teacher-child ratio across all five childcare classrooms was 1:1.86. The average teacher to child ratio across the three infant classrooms was slightly higher at 1:2. The average teacher to child ratio between the two toddler classrooms was slightly lower at 1:1.71. On average, the group size across all five childcare classrooms was 4.85. The group size averages for the infant and toddler classrooms were 4.67 and 5.13, respectively. The small group size in many of the classrooms was driving the low teacher-child ratios. Due to lower than standard group sizes in many of the classrooms, observed teacher-child ratios and group sizes either met or exceeded National Association for the Education of Young Children (NAEYC) standards.

Floaters/Substitutes. Lower than agency and NAEYC standard teacher-child ratios were also made possible by the agency's employment of additional teaching staff, or "floaters." Floaters were employed both part- and full-time to provide classroom support during the routine childcare day as well as for special occasions such as field trips, or during difficult transitions wherein a child may require one-on-one care. For example, when a child with a congenital medical condition that prevented her from using her lower extremities was enrolled, a floater was temporarily assigned to provide additional teacher support in her classroom on a full-time basis. However, after a few weeks in care it became clear that, due to the child's inability to independently participate in classroom activities as well as the additional support that adherence to a regular medication schedule required, keeping the floater would be necessary to maintain high classroom quality brought about by low teacher-child ratios. As a result, the overall teacher-child ratio for that classroom was significantly reduced from an agency standard of 1:3 to 1:2.25.

Floaters were also utilized as substitutes when designated teachers were absent from the classroom due to illness, or vacation. Substitute teachers were tracked to classrooms based on skill-set in working with younger or older children. Tracking allowed substitutes the opportunity to hone their skills with a particular age group, thereby maintaining a high level of care in the classroom when designated teachers were absent. In addition, when a classroom teacher was absent for a long period of time, every effort was made to ensure that the substitute assigned to that classroom was consistent during his/her absence. This helped to ensure that children experience some consistency in the absence of a primary teacher.

One frequently observed substitute, as a result of her decade-long career as a substitute teacher with the agency and being tracked into providing support for younger children during that time, had extensive experience working with infants and toddlers. She was frequently

observed spending time skillfully providing support in the classrooms serving younger children (mostly infant, but occasionally toddler classrooms as well). On the following occasion she was observed substituting in the child's classroom.

> A target child approaches the substitute, who is standing up with a baby in her arms, and goes from a sitting to standing position while leaning on her legs. It appears he would like to be picked up. The substitute tells the child that she will sit down in a chair so she can cuddle with both the child in her arms and with him. The child follows her to where she sits and interacts with her and the other child for a minute or two. He smiles and coos in response to her attention ... Later, the child is observed looking back at her every minute or two to visually check in. He crawls around the room to explore ... the substitute walks over to direct his attention away from a cabinet that he is trying to open by gently holding his hand and walking him away from the cabinet. She is later observed holding the child and walking around the room while bouncing and dancing. At the end of the day when it is time for the substitute to leave, the child watches as she exists the classroom.

In this example, the substitute was observed showing attunement to the child by accurately reading and being responsive to his cue of wanting her attention. He later used her as a secure base, visually checking in with her during his play. She, in turn, visually checked in with him and was aware of his activities in the classroom, some from which she needed to redirect his attention. However, she did so in a calm and gentle manner. This is only one example of the many, in which floaters/substitutes were observed to be an integral part of the day-to-day classroom functioning as well as maintenance of high quality classroom standards.

Adult-Child Ratios. Adult-child ratios observed in this sample were often even lower than observed teacher-child ratios, as volunteers and parents were regularly present in the childcare classrooms. The presence of volunteers was observed across all five classrooms participating in the current study; however, the number of volunteers and frequency with which they visited varied by classroom. Nonetheless, in each of the five classrooms there was at least one volunteer (meaning that the agency employed five volunteers at a minimum). In comparison,

a statewide survey of 1,293 childcare centers found that childcare centers located in the same state as the present agency employed 1.11 volunteers on average (Social and Economic Sciences Research Center, 2015).

Volunteers were required to make a minimum six-month commitment to service, to keep a consistent schedule and, based on the needs of each individual classroom, were assigned a day and time during which they would volunteer. While volunteers had the option of spending an entire childcare day in the classroom (with a minimum requirement of a two-hour block per week), they were typically observed spending a few hours (two to three) on their designated day(s). All volunteers were required to attend an orientation session as well as submit for a TB test, background check, and fingerprints prior to beginning their service.

Volunteers were observed throughout the childcare day spending time with the children as well as providing assistance with classroom management tasks (e.g., cleaning up after meal time). The volunteers were regular fixtures in the classroom and after a time became an integral part of the childcare environment. Children were often observed seeking volunteers out and interacting with them as though they were regular classroom teachers. In one example of this, a volunteer was observed swaddling a toddler-aged child like a small infant.

> During her sixth week in care the target child explores the classroom excitedly with energy, vigor, and a big smile on her face, while her primary teacher is busy cleaning up after snack in another area of the room. When it comes time for a short break to recharge from her classroom explorations she goes to her classroom volunteer. The child plays with a blanket as she approaches the volunteer. The volunteer takes the blanket, wraps the child up, and holds her like a baby. The child lies calmly in the volunteer's arms, wraps her arm around the her, and lays her head on the her chest. The child sits with her for two to three minutes before the volunteer places her back down on the carpet. The child stays lying next to the volunteer for a minute or so before getting back up to play.

In this example of the relationship that develops between children and volunteers, the child used a familiar volunteer as a secure base from which to explore her environment when her primary teacher was not available.

In another example, also during her sixth week in care, a target child cried inconsolably while her primary teacher was busy changing other children's diapers. Throughout her early weeks in care, this child exhibited a pattern of becoming emotionally dysregulated when a stranger (often other staff members) entered the classroom, even for very brief periods of time. On this occasion, a number of unknown staff members had recently visited the classroom to coordinate with the teachers about a holiday event that was being held at the agency that day. The child was trying to retrieve her coat from her cubby, a self-soothing technique she was often observed employing when upset and teachers were not available to help co-regulate. At this moment the classroom volunteer for the day entered the room.

> The volunteer immediately picks the target child up and she settles down after a minute or so of sniffling. The child rests her hand on the volunteer's shoulder. The volunteer talks to the child softly, pats her back and walks around the room ... the child is able to calm down and begin to engage in her environment (plays with a small toy) while in the volunteer's arms. Later, the child sits in the volunteer's lap. When another child approaches the two and attempts to sit in her lap too, the target child pushes him away. The other child sits next to them instead, which the target child seems to be okay with, but does not appear to want to share the volunteer's lap.

The classroom volunteer described in the above example was immediately responsive and appropriately sensitive to the child's level of distress. The child was able to co-regulate though the volunteer's sensitive and responsive approach (noticing the child's distress, picking her up right away, and walking around the room while patting her back and talking to the child softly) to her distress. By resting her hand on the volunteer's shoulder and re-engaging in her

environment through play and without tears, the child showed that she felt comfortable in the volunteer's presence and was able to re-gain her emotional composure as a result of it.

Parents/legal guardians were also welcome to visit and spend time with their child in the classroom as often as they would like. The parents of a handful of the children participating in the study were observed visiting their child's classroom outside of pick up and drop-off times. However, most of these visits were brief and were often the result of an event such as their child's birthday[11]. On one such occasion a target child was observed sitting quietly at the table, about to eat his snack when his mom walks in the room. The child looks up when he hears the door open and he,

> gives a big smile and walks to the door to greet his mom. His mom smiles and says "Hello birthday boy!" Then, mom sits next to the child. The child shows mom his snack. He stays close to mom as she moves around room and begins to fuss when he thinks she is leaving (but she doesn't). He sits on his mom's lap while he opens his presents and remains there for the remainder of the time she is in the classroom.

In another example of a brief parent visit to a classroom, another target child's mom stopped in to drop off a new prescription medication that needed to be administered during the childcare day. When the child sees his mom enter the room, "he begins making excited sounds and looks around excitedly for a way out of the structure he is playing in to crawl over to her. The child looks at his mom, smiles, and reaches out toward her." Mom picked the child up and interacted with him for a minute before showing the teachers how to administer his medicine.

> Once finished with the demonstration she puts the child down and he begins to fuss/cry, pulls to stand on his mom's legs and looks up at her. Mom picks him up again. He stops

[11] While none of the children participating in the study had parents who spent extended periods of time in the classroom on a regular basis, parents of children not involved in the current study were observed making regular and extended visits to their child's classroom.

> crying and smiles. Mom puts the child down again after interacting with him for a minute. The child does not fuss, seems content ... Then, the CFT enters the room, stands next to mom and talks to her. The child watches from a few feet away, starts to fuss. Again, the child crawls over to mom ... mom picks him up. He stops crying and gives big smiles. Mom plays with the child for a minute, swings him around and places him back on the carpet ... [When it is time for mom to leave] she hands the child over to his primary teacher and says "Bye!" The child looks at mom, appears to be ok with the hand-off. Mom leaves the room, the child does not fuss and turns around almost immediately to continue play with another child.

Parents of the children participating in the current study were also observed providing classroom support by accompanying their child's classroom on fieldtrips. On one such occasion, a target child's mom entered the classroom to join the children on their journey to visit and take pictures with Santa Claus. As she entered, another target child was crying inconsolably due to the onslaught of unknown visitors to the classroom that morning in preparation for the holiday event. Both classroom teachers were busy with morning classroom preparations such as making bottles for the younger infants and preparing breakfast plates for the soon-to-be toddlers and cannot attend to the child's need for emotional co-regulation at the moment. The mom sat down next to the child and attempted to soothe her, saying, "Its ok sweetie" in a soothing, empathic voice. While she was not able to help the child calm down, she was available to help support the classroom by providing an empathic response as well as being available to help watch over the children while the teachers managed the classroom routine with the added stress of a change to it.

These examples are illustrative of the positive interactions observed between children and the substitute teachers, volunteers, and parents as well as the positive impact their presence often had in the classroom. Regular floaters/substitutes and volunteers eventually seemed to become regular fixtures in the classroom setting and helped to preserve a high level of care not only by increasing the adult to child ratio, but by interacting with the children in a sensitive and

responsive manner. Parents in the study sample, while not consistently present were occasionally observed in the classroom setting and also engaged in positive interactions with the children.

Structural Quality: Teacher Education Level, Experience, and Training

Teachers were hired on the basis of their goodness-of-fit in the classroom environment as well as education level and prior work experience with children. Once candidates had undergone two in-person interviews (the first with the staff supervisor and the second with the center director), prior to being hired on as a teacher all candidates were required to spend three full days in the treatment room to which they were applying to work. These "try-outs" provided an opportunity for potential new hires to get a feel for the work that teachers were expected to perform (e.g., care-giving tasks, driving vans) and to determine if the potential new hire fit within a particular classroom's milieu.

In addition, all teachers (lead and assistant) were expected to hold a B.A/B.S. in early childhood care and education, or related field (e.g., education, psychology, social work), or an A.A/A.S. in early childhood care and education with 3-5 years of prior experience working with young children. As a result the education level among the study sample of teachers was higher than what is typical in the average childcare setting, in which 60 percent of teachers held a Bachelors degree (Early et al., 2007). Seventy-seven percent (n=10) of teachers held a B.A./B.S. Of those, 90% earned their degree in a social sciences field (i.e., Psychology, Social Work, or Sociology). Two teachers earned an A.A/A.S. (subject of study not identified) and one teacher received an M.A. in Public Administration. The number of years teachers reported working in the childcare industry ranged from less than one to ten-plus years, with approximately half of teachers (54%) indicating a range of between six and ten-plus years of childcare work

experience. The number of years teachers reported working at the present therapeutic childcare agency ranged from less than one year to ten-plus years, with more than half of teachers (62%) indicating a range between less than one year and 3 years of work experience at the present therapeutic childcare agency. See Table 7. This finding is consistent with the extant literature, which has shown a high rate of turnover among teachers in the childcare field.

While teacher education level and average work experience was high, teacher uptake of training opportunities outside of the agency tended to be low. Twenty-five percent of teachers (n=3) indicated that they had attended an ECE training/certification course, while only one teacher reported completing continuing education units. However, low teacher uptake of trainings and educational opportunities offered outside of the agency, despite the provision of an annual education stipend, might be due to the extensive offering of in-service trainings provided by the agency. Information on the training opportunities provided to teachers is discussed in the following chapter on teacher supports.

Process Quality: Activities and Materials

Infant and Toddler Environmental Rating Scale (ITERS). The ITERS was used to assess child exposure to activities and materials in all five infant/toddler classroom environments. Each infant and toddler classroom (n=5) in this sample received an overall ITERS score as well as seven subscale scores. The average overall score for the infant and toddler classrooms in this sample was 4.34 (SD=.26). Overall ITERS scores for the five classrooms assessed indicated that classroom quality was rated between "minimal" (or a score of 3) and "good" (or a score of 5). Average subscale scores for Subscales 1 through 7 are as follows: Space and Furnishings, 4.76 (SD=.26); Personal Care Routines, 1.6 (SD=.22); Listening and Talking,

6.4 (SD=.55); Activities, 2.96 (SD=.54); Interaction, 6.12 (SD=.79); Program Structure, 3.9 (SD=.35), and Parents and Staff, 6.00 (SD=0.00).

The average overall ITERS score obtained in the present study was comparable to the average overall ITERS score obtained for all infant and toddler classrooms (n = 74) reviewed across five counties in the state as part of the Quality Rating Improvement System (QRIS). For the state in which the agency is located the average overall ITERS score for childcare centers participating in the QRIS was 4.72 (SD = 0.83). Average subscale scores for Subscales 1 through 7 are as follows: Space and Furnishings, 4.62, (SD = 1.11); Personal Care Routines, 3.71 (SD = 1.34); Listening and Talking, 5.23 (SD = 1.28); Activities, 3.99 (SD=1.09); Interaction, 5.67 (SD = 1.09); Program Structure, 4.82 (SD = 1.60), and Parents and Staff, 5.59 (SD = 1.13). Looking across agency and QRIS scores it is interesting to note that while the average overall ITERS scores are comparable (4.34 and 4.72), the range and distribution of subscale scores differed. ITERS Subscale scores for the five infant and toddler classrooms assessed in the current study ranged from a low of 1.60 to a high of 6.4, scoring highest in Subscales 3 (Listening and Talking, m = 6.4), 5 (Interaction, m = 6.12) and 7 (Parents and Staff, m = 6.0). For the 74 infant and toddler classrooms reviewed as part of the QRIS program, ITERS subscales scores ranged from a low of 3.71 to a high of 5.67, again scoring highest in Subscales 3 (m = 5.23), 5 (m = 5.67), and 7 (m = 5.59). Descriptive statistics for ITERS data are presented in Table 8.

With regard to overall ITERS scores, the present childcare agency and state QRIS quality ratings were similar. However, the distribution of scores across subscales differed substantially. For state-level QRIS ratings there is little variation in scores across the ITERS subscales, most scores falling in the 3-5 range. On the other hand, for the present childcare agency, more variation was observed across subscale scores with a range of 2 – 6. Most importantly, scores

were highest for subscales 3, 5, and 7. These subscales reflect teacher-child interactions as well as family and teacher supports, domains of quality that have been shown to matter for the development of secure teacher-child attachment relationships.

Field notes. During their time at the childcare center children across study sample classrooms were observed playing with their peers in both indoor and outdoor settings. Since the classrooms share outdoor play spaces, when playing outside the children were often exposed to same-aged peers and teachers from other classrooms when weather permitted outdoor play. In the toddler classrooms circle time was a regular part of the childcare day and typically involved singing and dancing. Both structured and unstructured playtime was provided daily. Observed structured activities included painting, coloring, and sensory play (e.g., water-play, Play-Doh). Toddler classrooms provided a variety of areas designated for different types of play called "centers" in which children could choose to play during unstructured playtime. A quiet space was set up for children to calm down when upset. In the infant classrooms much of the childcare day was spent on care giving tasks such as feeding, diapering, and putting children down for nap. The vast majority of activities observed in infant classrooms were unstructured.

Process Quality: Teacher – Child Interactions

Classroom Assessment Scoring System, Infant and Toddler (CLASS). The Infant CLASS was used to assess teacher-child interactions in three classroom environments serving infants ranging in age from six to 14 months at the time of assessment. Each classroom received one domain score, Relational Climate. The average Infant CLASS Relational Climate domain score was 4.73 (SD=1.55). That is, on average, the relational climate of infant classrooms in this sample were rated in the "mid"-range (scores between 3 and 5), meaning that teachers were

inconsistently effective at creating a classroom climate characterized by high levels of teacher sensitivity, facilitated exploration, and language support.

The Toddler CLASS was used to assess teacher-child interactions in two classroom environments serving toddlers ranging in age from eighteen to twenty-four months. Each classroom received two domain scores, Emotional and Behavioral Support and Engaged Support for Learning. The average Toddler CLASS Emotional and Behavioral Support domain score was 6.55 (SD=.64). This means that, on average, the emotional and behavioral support observed in the toddler classrooms was in the "high"-range (scores between 6 and 7), meaning that teachers were consistently effective at providing a positive climate with low levels of negativity and high levels of teacher sensitivity, regard for children's perspective, and behavior guidance to the children in their care. The average Engaged Support for Learning domain score was 5.05 (SD=.35). The average engaged support for learning that was observed in the toddler classrooms was in the "mid"-range, meaning that teachers were inconsistency effective at providing an classroom environment characterized by high levels of facilitation of learning and development, quality feedback, and language modeling. See Table 9.

The average Toddler CLASS scores obtained in the current study sample were higher than average Toddler CLASS scores obtained for all toddler classrooms (n = 44) reviewed across five counties in the state as part of the Quality Rating Improvement System (QRIS). For the state in which the agency involved in the current study is located the average Toddler CLASS domain scores for centers participating in the QRIS were as follows: 5.31 (Emotional and Behavioral Support) and 3.67 (Engaged Support for Learning). Unfortunately, the Infant CLASS measure was not administered in center classrooms participating in the state's QRIS. As a result, Infant CLASS scores from the current study sample were compared to QRIS scores from another

metropolitan city on the West coast. The average Relational Climate domain score (m = 4.73) obtained from the current study sample was comparable to the Relational Climate domain score (m = 4.48) received by the childcare sites participating in the QRIS.

Field notes. CLASS scores and field notes were consistent. Since the focus of the current study is on the development of the teacher-child attachment relationship, the following three vignettes are illustrative of the classroom emotional climate in as well as the types of teacher-child interactions observed across participating infant and toddler classrooms. To reflect CLASS domains, these vignettes address the relational climate provided in infant rooms and the emotional and behavioral support provided in toddler classrooms.

The interactions observed between the teachers and children in the following vignette are illustrative of a high quality relational climate rating. The teachers and children were observed sitting on the carpet together and interacting with one another and even though the child eventually crawled away to explore the room, he was soon thereafter drawn back to the group. When on his way back to the group he decided to practice a not quite acquired skill of standing on his own, the primary teacher encourages him to try it without the assistance of the chair. The teacher encouraged him and both teachers celebrated his attempt to stand up without assistance.

> The target child plays near his primary teacher, smiles at her in response to her silly behavior. The child then explores the room, plays alone for a minute then crawls back over toward where the other children and teachers are sitting. On the child's way back over to them, he pulls to stand on a chair. The teacher watches him and encourages him to stand without holding the chair and walk toward her. The child appears hesitant but lets go of chair. The teacher holds arms out toward him. He stands for a few seconds and then falls to the ground. Both teachers begin clapping. The child crawls toward his primary teacher, stops short of getting there, looks up at her for a moment and then continues all the way over and into her lap.

This represents an example of a high quality relational climate due to positive relational behaviors (teachers sitting and interacting with the children on the floor, absence of teacher negativity), high levels of positive affect (smiling and clapping), teacher sensitivity (the teacher's awareness of and responsiveness to the child's activities) and facilitated exploration (the teacher attempting to expand the child's development by encouraging him to let go of the chair).

However, a high quality relational climate was not consistently observed across infant classrooms. Although the field notes contain some examples of a high quality relational environment, most field notes are of a lower quality relational environment. In contrast to the high relational climate described above, the following example is illustrative of a lower quality relational climate. The children were observed sitting together eating their lunch. Meanwhile,

> the classroom teachers stand nearby talking to one another, looking over at the children to monitor from time to time. At one point a child drops her cup, but the teachers do not notice because they have their backs turned away from the children doing administrative tasks. The classroom volunteer notices, walks over, picks up the cup, and gives it back to the child.

This short vignette is illustrative of a lower quality relational climate due to an absence of interactions between teachers and children (children eat while teachers talk and perform administrative duties), low levels of positive affect, low levels of teacher sensitivity as indicated by minimal teacher awareness of child activities (teachers monitor children from time to time, do not notice when a child's cup falls to the floor and is out of her reach), and an absence of facilitated exploration.

The toddler classrooms showed a more consistent pattern of high quality teacher-child interactions than did the infant classrooms, as reflected in their aggregated scores in emotional and behavioral support domain. The following vignette was chosen because it reflects the high

quality of emotional and behavioral support that was consistently observed across toddler classrooms. The teacher in the following vignette, who was the primary teacher for both children, is tasked with providing both children with the care and support they needed.

> The primary teacher places the target child on the carpet to play. The teacher sits down a few feet away to interact with another child, who was having a difficult morning and being clingy. The target child sits on carpet with toy, smile on face watches other children play together nearby ... he crawls over to his teacher and into her lap. The teacher hugs and kisses him. The teacher suggests to the target child they take a walk around the room. She holds the target child's hands and they walk to other side of room, sit down and play. The target child leans on a big ball, the teacher sits next to him hugging and talking to the other child. The target child looks at his primary teacher and smiles. She rolls the big ball and tells him to "go get the ball!" in a bright, enthusiastic voice. The ball rolls over to the volunteer and the volunteer rolls it back to the child. The child and the volunteer play with the ball together. The target child has smile on his face, seems to be enjoying himself. The primary teacher is focusing her attention on the other child again. She holds the other child and walks around the room. The target child looks over at his primary teacher from time to time and she takes a few moments to interact with him from time to time. [During one of these brief interactions] the target child hands his primary teacher a toy phone, she takes it and says "hello?" Together they share a brief interaction around the phone before she returns her attention back to the other child. The target child approaches the volunteer who is still sitting next to the big ball, plays with it for a moment and then climbs into volunteer's lap. The target child sits with the volunteer for a few minutes, he points to art on the wall. When the volunteer puts him down he heads over to crawling structure and plays. The primary teacher joins the target child, talks to him and smiles. They interact for a few minutes before the other child approaches the primary teacher and consumes her attention once again. The target child plays independently, cruises around the room. The primary teacher notices and praises him for his cruising. Another classroom teacher sits down next to where the target child is playing, looks over and gives him big smiles. He smiles back. The target child looks over his shoulder to watch the other children and teachers at play. He is playing in the toy kitchenette and looks back in his primary teacher's direction when he hears her voice. She says, "What are you making over there (target child name)?" The primary teacher approaches, gives him a big smile and says "hi!" – brief interaction. She walks away and he goes back to playing ... the primary teacher is sitting nearby with the other child in her lap ... another child approaches Liam, hands him a toy piece of fruit with smile on her face.

The primary teacher is observed making an effort to split her time evenly between the two children in her primary care. While it is clear that the other child is demanding more of her

attention, the primary teacher continually makes a point to check in with the target child throughout the time spent in unstructured play, which showed high levels of teacher sensitivity to children's individual needs. She regularly showed both children lots of emotional support and physical affection through holding and talking with children as well as providing hugs and kisses (positive climate, absence of negativity). In addition, both she and the children exhibited high positive affect through their smiles as well as the target child's willingness to engage in playful interactions with multiple adults in the classroom as well as with other children.

Chapter Summary

At an average overall teacher to child ratio of 1:1.86 and an average overall group size of 4.85 across all five classrooms, the classrooms involved in the current study exceeded the National Association for the Education of Young Children (NAEYC) standards for both teacher-child ratio and group size (NAEYC accreditation criteria, 2013). Adult to child ratios were often observed to be lower due to the presence of extra staff members (floaters), volunteers, and parents. All childcare teachers in the current study sample held an Associate's degree or higher with the majority of teachers holding a Bachelor's degree (77%; n=10). The majority of teachers had between six and ten years of experience working in the childcare field. While teacher education level and average work experience was high, teacher uptake of training opportunities outside of the agency tended to be low. Twenty-five percent of teachers (n=3) indicated that they had attended an ECE training/certification course, while only one teacher reported completing continuing education units in the preceding 12 months. However, one possible explanation for the finding that teachers in this sample exhibit low rates of attendance in continuing education courses is that the present childcare agency offers bi-monthly mandatory in-house trainings.

The Infant and Toddler Environmental Rating Scale (ITERS) and the Classroom Assessment Scoring System (CLASS) were used to measure process quality across five infant and toddler classrooms. The ITERS measure was used to assess child exposure to activities and materials. Across all five infant and toddler classrooms the average overall ITERS score was 4.34 (SD=.26), meaning that overall classroom quality was rated between "minimal" (or a score of 3) and "good" (or a score of 5) on indicators of quality related to child exposure to activities and materials. The average overall ITERS score obtained in the current study sample (m = 4.34) was comparable to that of infant and toddler classrooms assessed as part of the state's QRIS (m = 4.72), childcare evaluation study geared at promoting high quality childcare across the state. Despite differences in the distribution and range of ITERS subscale scores between the study sample and QRIS classrooms, subscale scores were highest for both samples in the subscale scores 3, 5, and 7.

The CLASS measures (Infant and Toddler) were used to assess the quality of teacher-child interactions. The average Infant CLASS Relational Climate domain score across three infant classrooms was 4.73 (SD=1.55), meaning that teachers were inconsistently effective at creating a classroom climate characterized by high levels of teacher sensitivity, facilitated exploration, and language support. The average Toddler CLASS Emotional and Behavioral Support domain score across two toddler classrooms was 6.55 (SD=.64), meaning that teachers were consistently effective at providing a positive climate with low levels of negativity and high levels of teacher sensitivity, regard for children's perspective, and behavior guidance to the children in their care. The average Toddler CLASS Engaged Support for Learning domain score was 5.05 (SD=.35), meaning that teachers were inconsistency effective at providing an classroom environment characterized by high levels of facilitation of learning and development,

quality feedback, and language modeling. Field notes taken over the course of the three-month structured observation of attachment behaviors reflect CLASS scores for both infant and toddler classrooms.

CHAPTER 8. TEACHER SUPPORTS

This chapter addresses research question three: What types of supports does this childcare center offer to teachers to foster secure attachment relationships? This chapter provides a detailed description of the compensation and benefits as well as the teacher training and development provided to teachers employed at the childcare agency. The data presented here was collected through survey administration with a member of the agency's administration team and was supplemented by relevant documents provided by the agency including the teacher pay scale and training day schedule for the calendar year in which data for the current study were collected.

Teacher Compensation and Benefits

Compensation. Teachers were paid hourly and wages were based on level of classroom responsibility (i.e., lead or assistant teacher). Hourly pay was based on a 10-step salary scale. The scale provides pay increased based on the number of years employed at the agency as well as evidence of continuing education. All new hires started at step one and gained a step in pay with each year of employment for the first eight years (range = $14.82 – 17.83 for lead teachers; range = $13.32 – 16.39 for assistant teachers)[12]. Pay increases during years one through eight

[12] Beginning in 2016 entry-level hourly wages for lead and assistant teachers increased to $17.25 and $15.50, respectively. In addition, a 3% cost-of-living allowance (COLA) wage increase has

were not based on a continuing education requirement, while pay increases for years nine and ten were. Pay increases capped out at ten years, with lead teachers receiving $18.92 and assistant teachers receiving $17.39 per hour.

At salary step 1 (starting pay for all new hires) lead and assistant teachers earned a gross annual income of approximately $30,800 and $27,700, respectively[13]. At salary step 10, the very top of the pay scale, lead teachers who met the continuing education requirement earned an annual gross income of $39,300 and assistant teachers earned an annual gross income of $36,100. In comparison, a statewide survey of 1,293 childcare centers found that lead and assistant teachers employed at centers located in the same state as the present agency earned an average of $24,492 ($12.82 per hour) and $20,796 per year ($10.67 per hour), respectively (Social and Economic Sciences Research Center, 2015). Thus, both lead and assistant teachers at the present childcare agency earned higher entry-level wages than early childhood education teachers statewide earned per year, on average. However, when compared to a Nationally representative sample of comparably educated childcare teachers surveyed in 2012, entry-level level pay at the present childcare agency is comparable to the average pay of ECE teachers (National Survey of Early Care and Education Project, 2013).

Benefits. In addition to wage-based compensation, full-time teachers were provided with a number of benefits including fully paid healthcare (including vision) and dental insurance, paid time off (vacation, personal, and sick leave), paid holidays, a pension plan, an education stipend, and a local transportation pass. Teachers received employer-paid healthcare benefits with the option of upgrading their coverage at a cost to the employee of $165 per month. Teachers also

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been put back into effect. For economic reasons the COLA was temporarily suspended between 2010 and 2015.

[13] Based on a 40-hour workweek

received paid dental insurance as well as vision coverage. Paid time off was provided to teachers and includes vacation, sick, and personal leave. All full-time teachers – regardless of salary step scale – received twelve paid sick days and two paid personal days per year. Vacation time was dependent upon the number of years employed with the agency. After six-months of employment all new hires were eligible for five days of paid vacation time. A teacher at the top end of the salary scale received twenty days of paid vacation per year. One quarter of unused sick time (three days) and any unused vacation time could be paid out at the end of each year. The agency was closed for ten federal holidays for which pay was received. The agency also contributes to a pension plan for all full-time teachers. Teachers were offered a monthly transportation pass fully-paid by the agency, which provided pass holders with unlimited rides on a wide variety of local transit options (metro bus, light rail, vanpool, ferry). However, this benefit was only extended to employees working at one of the agency's three branch locations due to its location in an area of the city that is heavily impacted by parking constraints.

Additionally, teachers were provided with an annual stipend to help offset the cost associated with continuing education courses and materials. Teachers were provided with a yearly stipend of $350 to spend on furthering their early childhood education knowledge through the purchase of relevant books, conference attendance, or enrollment in continuing education courses. Teachers who were eligible for pay scale steps nine and ten were provided with paid time off to fulfill continuing education requirements associated with these pay grades. The annual stipend was intended to be reimbursement for career-relevant training and education and can only be used as such. It could not be paid out at the end of the year if all, or a portion remains unspent.

Teachers were also given preparation time each day to complete necessary tasks. The amount of preparation time a teacher received depended on the morning and afternoon van schedules and varied from day to day. Van schedule withholding all teachers received a minimum of fifteen minutes of preparation and planning time per day. From there the amount of preparation time conservatively ranges from 15 to 30 minutes per day, or approximately one-hour-and-fifteen minutes to two-and-a-half hours per five-day workweek (not including the preparation time provided on training days).

Teacher Training and Development

The center was closed to families and children two days out of the month for staff training and program development. Between January and December 2014 there were 24 biweekly training day closures. These training days provided teachers with approximately sixteen hours of preparation time per month. Each month a significant portion of this time was allotted to attending mandatory trainings and staff development meetings. Any additional time outside of trainings could be used by teachers to clean and decorate classrooms, plan activities, complete notes, and meet with other team members and supervisors to discuss client cases, where applicable.

Over the course of 24 training days during 2014 there were 25 training topics covered. Four broad training day themes emerged from the data: Orientation, Annual Review/ Recertification, Special Topics, and Events. Themes were subcategorized as follows: Orientation (new hire orientations parts 1, 2, and 3); Annual Review/Re-certification (safety in the classroom, safety on the road, teacher/child health and wellness, and program preparation); Special Topics (child development, teacher development, and program development); and Events (staff benefits, team development, and program development). Training topics varied from year

to year, but always included a three-day comprehensive orientation as well as annual review/recertification trainings some of which focused on the impact of trauma on child development. During the year that data was collected "special topics" trainings included the introduction of evidence-based programs such as Promoting First Relationships ((Kelly, Zuckerman, Sandoval, and Buehlman, 2008), Second Step (Frey, Hirschstein, and Guzzo, 2000), High Scope (Hohmann, Weikart, and Epstein, 2008) classrooms curriculums. See Table 9.

As a part of program maintenance and development the agency held biweekly all staff meetings as well as daily morning meetings for teaching staff. Twenty-four all staff meetings were held per year (on training days) and attendees typically included teachers, supervisors, child and family therapists as well as select members of the support staff (housekeeping, substitute teachers). Topics discussed at these biweekly staff meetings included staff and program updates. These meetings also provided staff with an opportunity to celebrate fellow co-workers for special life occasions (birthdays, marriages, births, employment anniversaries) as well as to recognize one another for hard work and dedication through the distribution of staff "super stars."[14] In addition to biweekly staff meetings, all teaching staff (regular classroom teachers, substitutes, and floaters) were required to attend a daily morning meeting prior to the departure of vans to children's homes. The duration of morning meetings was approximately five minutes, during which time the program supervisor checked-in with as well as conveyed important messages to the teaching staff.

In addition to regular daily and biweekly meetings, the agency utilized annual program and staff development plans. The annual program development plan was created and overseen by the agency's Program Operations Manager. The plan acted as a roadmap for the up-coming year,

[14] Star-shaped awards that list positive staff attributes

helping to ensure that in-service training events were in-line with program goals as well as the on-going maintenance and expansion of teachers' skills. There were also individual staff development plans that outlined each teacher's goals for the year based on annual staff evaluations.

Chapter Summary

The present therapeutic childcare agency provided many supports to teachers which include, but are not limited to paid healthcare benefits, paid holidays, paid vacation/sick/personal time, regular training opportunities, an annual educational stipend as well as preparation/planning time, staff development plans, and union representation. It is not common for benefits such as paid time off for vacation, holidays, and sick leave to be offered to childcare teachers (Whitebook et al., 2009). However, the hourly wages provided to the teachers at this agency were low compared to comparably educated childcare teachers working at center-based programs. Based on the National Survey of Early Care and Education findings, in 2012 the average hourly wage of comparably educated (i.e., Bachelor's degree or higher) center-based childcare teachers was $17.30 per hour (NSECE, 2013). This average hourly-wage is comparable to what teachers at the present childcare agency would be paid after ten years of employment there (based on the teacher pay scale in effect during the 2014 calendar year when data was collected). While the provision of benefits such as paid vacation, holiday, and sick leave is certainly a step in the right direction, providing teachers with adequate pay has been shown to be an important predictor of positive teacher-child relationship development and boosting overall childcare quality (Whitebook, Howes, and Phillips, 2015).

CHAPTER 9. DISCUSSION

Teacher-Child Attachment Relationships in a Therapeutic Childcare Program

Taken together, the data herein represent a detailed case study of the infant and toddler care provided at one therapeutic childcare agency for children exposed to maltreatment. The central aim of the current study was to determine if, despite a significant history of psychosocial and environmental stressors as well as disordered primary attachment relationships, maltreated infants and toddlers were able to develop secure attachment relationships with their primary childcare teachers in the context of an attachment-based therapeutic childcare program. In order to address this central research question, teacher and child attachment behaviors were recorded over a three-month-period of time using both structured and unstructured observation techniques. At the end of the attachment behavior observation period, teacher-child attachment relationships were assessed using a standardized measure of attachment security. Findings suggest that when exposed to consistently sensitive and responsive care giving practices maltreated infants and toddlers are able to develop secure attachment relationships with their primary childcare teachers overtime.

Teacher-Child Attachment Relationship Development

Continuity and Change Over Time

Teacher-Child Attachment Behavior Trends. In alignment with attachment theory, results from the current study demonstrate that infants and toddlers who are provided with sensitive and responsive care giving develop secure attachment relationships with their caregivers, despite significant exposure to psychosocial, environmental, and relational adversity. The majority of child and teacher attachment behaviors observed across childcare classrooms were secure in nature. Commonly observed child attachment behaviors included tracking, proximity-seeking,

and positive social interactions. Secure teacher attachment behaviors included consistently sensitive, responsive care giving practices that communicated positive regard for the child. The frequency and quality of teacher and child attachment behaviors were recorded over three months to produce attachment behavior trends over time. When examined over time the most common secure attachment behavior trend showed an initial low frequency of secure child attachment behaviors that gradually increased. This upward trend of secure child attachment behaviors suggests that the primary teachers of these children consistently met a standard of care that was characterized by sensitivity, responsiveness and positive regard, encouraging the infants and toddlers in their care to continue to exhibit more frequent secure attachment behaviors over time.

Furthermore, at the end of the three-month attachment behavior observation period, three (Brielle, Emmett, and Jacob) out of the four children who showed a pattern of secure attachment behavior characterized by low initial frequencies of secure attachment behaviors that gradually increased over time scored in the secure range on the AQS at T1. The fourth child, Grace, who showed initially low and gradually increasing pattern of secure attachment behaviors overtime received an attachment security score of .29, on the cusp of the security cut-off score of .33. At T2 Grace and her primary teacher scored in the secure range at .68. However, it is worth noting that between T1 and T2 her primary teacher assignment changed.

Other secure attachment behavior trends included an initial high frequency of secure attachment behaviors that remained constant over time (n = 1) as well as secure attachment behaviors that decreased over time (n = 2). The child for whom the frequency of attachment behaviors remained relatively constant over time was Jason. The reasons for this steady trend in secure attachment behavior are unclear and require further investigation. He remained with the

same primary teacher throughout the attachment behavior observation period and was consistently present in the childcare classroom over the course of his first three months in care. While his exposure, both in number and type, to psychosocial and environmental stressors did not differ substantially from that of his peers, his relationship classification with his primary attachment figure (mom) did differ. Jason is the only child in the current study sample whose attachment relationship with his primary attachment figure was classified as "anxious/tense", rather than "under-involved." In conjunction with a relationship classification that differed from that of his peers, it is also interesting to note that at 22-months-of-age at intake Jason is the oldest child in the study sample. This raises the possibility of a developmental, or timing effect. It is possible that his previous relationship experiences as well as his advanced age in comparison to his peers influenced the frequency with which Jason directed secure attachment behaviors toward his primary teacher. Findings from Jason's case study highlight the need for further research with a larger sample size that includes children with various primary attachment relationship classifications as well as sufficient age-diversity to determine the factors that caused his unique secure attachment behavior trend.

In addition to Jason's aberrant secure attachment behavior trend, there were two children, Eliana and Troy, for whom secure attachment behaviors decreased over time. For Eliana, the reasons for a drastic decline in secure attachment behaviors over time were outlined in her case study included in Chapter VI of this manuscript. Briefly, examination of child attachment behaviors over time indicates that while Eliana showed a very high frequency of secure attachment behaviors at enrollment, field notes indicated that some of these "secure" behaviors showed an intensity that lent them a more disordered quality. Upon closer examination of the contexts in which these intense "secure" behaviors were elicited, it became clear that the intense

and urgent nature of her tracking and proximity-seeking behaviors in the presence of strangers, or absence of her primary teacher gave them a more anxious, rather than a genuine secure quality. Eliana's "secure" attachment behavior trend suggested that she entered care with behaviors consistent with secure base distortion. However, as Eliana became more comfortable in the childcare setting the frequency with which she exhibited behaviors consistent with secure base distortion decreased over time. Eventually, she was able to abandon her secure base distortion attachment strategies in favor of those that more closely matched her immediate environment.

On the other hand, Troy's pattern, which also initially showed moderately high levels of secure attachment behaviors that decreased over time, indicated that the care giving practiced by his primary teacher may have had something to do with the decline in the frequency of his secure attachment behavior over time. Upon review of the field notes used to document the development of Troy's relationship with this primary teacher over time, it became clear that Troy had the ability to use his primary teacher as a secure base from which to explore his environment and frequently engaged in tracking, proximity-seeking as well as initiated positive interactions with her. At the beginning of the current study, the principal investigator and author of this manuscript took note of Troy's remarkably secure behaviors and remarked to colleagues that if all the children in the current sample behaved in a similar fashion that there would not be much of a story to tell in the end.

However, over time, the frequency with which he displayed secure attachment behaviors began to decline. Field notes revealed that his primary teacher was not consistently engaging in the sorts of care giving practices (i.e., responsiveness, sensitivity, and positive regard) that have been shown to be linked to secure attachment relationship development. Furthermore, field notes

also indicated that his primary teacher was frequently disengaged/disinterested in her interactions with him. Realizing that he was not receiving the type of interactions to which he was accustomed, Troy stopped looking for them. Moreover, field notes indicated that Troy began to avoid his primary teacher all together. In Troy's case it appeared that given a pattern of disengaged care giving he abandoned secure attachment behaviors in favor of those that matched the insecure quality of attachment he was receiving from his primary teachers. Again, consistent with attachment theory, both Eliana and Troy were able to acclimate to their caregiving environment by mirroring the interaction pattern exhibited by their new caregivers.

Insecure Teacher Attachment Behavior. While the majority of teacher and child attachment behaviors were secure, insecure attachment behaviors were observed in a small population of teacher-child dyads. Observed insecure teacher attachment behaviors included intrusiveness and disengagement. It is important to note that teacher intrusiveness was seldom observed and when it was observed it was embedded in overall positive interactions with children. Teacher intrusiveness in these instances was the result of the teacher not appropriately reading and responding to the child's cues during otherwise positive interactions. Most importantly, teacher intrusiveness did not characterize teacher-child attachment patterns overtime. As such, occasional instances of teacher intrusiveness did not interfere with the development of secure attachment relationships as measured by the AQS at T1 and T2. Thus, infrequent misinterpretation, or even missing a child's cues all together is not the issue. It is the pattern of teacher-child interactions over time that matters. In instances of occasional intrusiveness that did not otherwise characterize the teacher-child relationship pattern, teacher-child attachment relationships were securely developed.

More concerning are the teacher-child dyads for whom disengaged, or inconsistent (responsive at times, disengaged at others) teacher attachment behavior was observed. Disengaged and inconsistent teacher behaviors were observed on a more consistent basis, often characterizing the teacher's responses to a child among a small sample of teacher-child dyads. It has been well established that the result of disengaged, or inconsistent (e.g., maternal depression, parental substance abuse) care giving often leads to the development of insecure attachment relationships with the children who experience it (Radke-Yarrow, Cummings, Kuczynski, & Chapman, 1985; van IJzendoorn, Goldberg, Kroonenberg, & Frenkel, 1992). As such, teacher responses characterized by disengaged, or inconsistently engaged patterns of care giving could very well lead the teacher-child dyad to develop an insecure attachment relationship.

Attachment Security Over Time. While there were differences at the AQS score-level for most teacher-child dyads between T1 and T2 assessment, five out of the six dyads for whom two points of data were collected scored in the secure range ($\geq$.33) at both time points. The teacher-child dyad scoring in the insecure range on the AQS was different at T1 and T2. The two children for whom attachment security changed over time were Grace and Emmett. For both children, changes in attachment security were likely due in large part to psychosocial and environmental changes that occurred between T1 and T2.

For Grace, the environmental change that may have precipitated a shift from insecure attachment at T1 to secure attachment at T2 was her primary teacher assignment. At T1, Grace and her primary teacher scored on the cusp of the attachment security cut-off point of .33. According to Howes and Ritchie's (1999) attachment security subscales, at an AQS score of .29 this teacher-child dyad attachment relationship was organized in a "nearly secure" manner. However, upon review of extensive field notes detailing the dyad's interactions over the course

of the three month attachment behavior observation period it was discovered that the presence of care giving practices that have been linked to secure attachment relationship development were inconsistent. Namely, at times Grace's primary teacher was responsive and sensitive in her interactions, but at other times she appeared disengaged. This combination of sensitivity and responsiveness coupled with periods of disengagement would be considered inconsistent care giving practices, which has implications for the development of an insecure attachment relationship development. Had the inconsistencies in care giving observed during the three-month attachment behavior observation period continued it is likely that this dyad would have scored in the insecure range at T2 as well.

However, a few months prior to T2 attachment security assessment Grace's primary teacher assignment changed. Since observation of the attachment behaviors between Grace and her new primary teacher were not observed, the benefit of extensive field notes cannot be relied upon for AQS score interpretation. Therefore, the difference between AQS scores at T1 and T2 is the only piece of information that can inform the interpretations of teacher-child attachment security. In this case, the size of the attachment score gain from T1 to T2 is noteworthy. Going from an attachment security score of .29 to a score of .68, Grace saw an attachment score gain of .39, the largest attachment score gain from T1 to T2 among teacher-child dyads. There is absolutely no way to know whether this score gain was due to the change in primary teacher; however, this large discrepancy in scores provides interesting food for thought.

Emmett, the other child for whom a change in attachment security was observed, went from scoring in the secure range at T1 (.71) to scoring in the insecure range at T2 (.07). While his T2 score of .07 still placed him in the "near secure" attachment subscale, extensive field notes as well as a score discrepancy between T1 and T2 of .64 helps to interpret the attachment

security that existed between Emmett and his primary teacher as well as how it changed over time. In Emmett's case the environmental condition that likely contributed to the drastic decrease in attachment security from T1 to T2 was inconsistent attendance followed by a prolonged absence (~3 weeks) during the months leading up to T2 attachment security assessment. According to Emmett's primary teacher he was reportedly absent due to health complications. The move on the AQS continuum from secure to insecure as well as field notes that help to characterize the relationship quality at T1 and T2 indicate that Emmett's relationship with his primary teacher was negatively impacted by his absence, or perhaps the events surrounding his absence.

That is, in addition to the length of his absence, the reasons for and experiences surrounding Emmett's absence may have had a profound effect on his ability to maintain a secure attachment relationship with his primary teacher in the childcare setting. For example, perhaps in addition to health complications – a significant stressor in and of itself – Emmett had a higher level of exposure to other psychosocial and environmental stressors as a result of spending more time in a home impacted by significant adversity including but not limited to parental substance abuse and mental illness, poverty, homelessness, limited social support as well as ongoing CPS involvement. It is likely that sporadic attendance followed by an extended absence would have impacted the teacher-child attachment relationship to some degree for any child, maltreated or not. However, for a child experiencing significant psychosocial and environmental stressors in the home environment, it begs the question of the extent to which the teacher-child attachment relationship is impaired as a result of increased exposure to adversity as a contributing factor. Emmett's situation sheds light on the importance of consistency and stability in childcare attendance. It also highlights the importance of one childcare service in

particular that this agency provides, which helps to ensure consistent attendance; daily transportation to and from the childcare center for all children enrolled. While practical implications cannot be ascertained from this single example, to tease apart the affect of attendance rates in a population of children faced with substantial exposure to psychosocial and environmental stressors in the home environment on the developing teacher-child relationship, this finding warrants further investigation with a larger sample size.

Structural and Process Quality Indicators

Structural Promoted Process Quality and Secure Teacher-Child Attachment

Low Teacher-Child Ratios and Group Sizes. The observed teacher-child ratios and group sizes were low compared to both local State and National NAECY standards. When taking in to account staff floaters, regular classroom volunteers and parent participation, the adult-to-child ratios were initially even lower still due to low enrollment rates at the beginning of data collection. Over time, as more children were enrolled and classroom group sizes grew, the extra adults in the classroom meant that the adult-to-child ratio remained low. As such, teacher-child ratios remained low and adult-child ratios remained stable over time, conditions that have been shown to be conducive to the development of secure teacher-child attachment relationships through increased exposure to more sensitive and responsive care giving practices (NICHD, 1996).

Teacher Education and Training. The teachers who participated in the current study were more highly educated than are childcare teachers Nationally. While the high education level in this sample of teachers is noteworthy compared to the National average, teacher education level has not been shown to predict secure attachment relationship development (Early, Bryant, Pianta,

Clifford, Burchinal, Ritchie, Howes, and Barbarin, 2006). However, early childhood continuing education trainings that emphasize sensitive and responsive care giving have been shown to promote the use of sensitive care giving practices in the classroom (Arnett, 1989; Howes, Galinsky, and Konotos, 1998). As such, of particular relevance to the current study sample is the opportunity teachers had to continue their early childhood education and knowledge through in-house trainings. As part of their employment at the current childcare agency all teachers were required to attend bimonthly trainings. Among these trainings was the introduction of The Promoting First Relationships (Kelly, Zuckerman, Sandoval, and Buehlman, 2008) curriculum, which is geared toward childcare professionals working with infants and toddlers (ages 0 – 3) and emphasizes the importance of nurturance in care giving practices. According to the Promoting First Relationship creators, the curriculum was designed to "train service providers in the use of practical, in-depth, effective strategies for promoting secure and healthy relationships between caregivers and young children." That teachers in the current study sample consistently attended bimonthly trainings, some of which focused on the importance of nurturance, likely contributed to the high rate of secure attachments observed in this sample.

Child Attendance and Daily Transportation Services. While not formally measured in this dissertation project as a component of structural quality, it is worth mentioning that the consistency of a child's attendance had a profound impact on this study. On the one hand, likely due in large part to the agency transportation services, overall the attendance of the children participating in this study was consistently high. The morning and afternoon transportation service that this agency provided appeared to negate the effect of environmental adversity faced by many of these families including lack of transportation as a result of poverty and homelessness.

On the other hand, despite the offer of transportation, a handful of families were forced to temporarily suspend and eventually discontinue their child's enrollment due to circumstances out of their control. Over the nine-month course of the project, three of the original 11 child participants could not complete the study as a result of changes in their living situations. Two of these children, who lived in temporary homeless shelters at the start of this study, were required to discontinue their enrollment in childcare services because more permanent housing had become available for them in a city far outside of the agency's transportation catchment zone. From these locations transportation by bus, or other means of public transit would not have been a particularly feasible alternative to the transportation services provided by the agency. The other child was no longer able to attend this childcare agency due to the family's need to relocate in response to the threat of domestic abuse. Coming from already unstable home and family environments, inconsistent attendance in childcare was not a luxury these children could easily afford. The transportation that this agency provided as part of its service delivery to families was invaluable and, in a population with limited access to resources such as reliable and affordable transportation, it may have even made the difference between the development of an insecure and a secure teacher-child attachment relationship.

In a population exposed to a variety of adversity (e.g., poverty, homelessness) that likely makes consistent attendance in childcare a challenging feat, there are clear policy implications for ease of access to high quality childcare programs. For example, "ease of access" could translate in to the allocation of funds toward the development of transportation services for children to attend high quality childcare settings outside of their immediate communities. After all, school transportation is provided for public school students in attendance at other public institutions of learning, namely the K-12 public education system. Perhaps as preschool is

integrated in to the K-12 education system, we will see an increase in the access of high quality early learning environments for some of our most at-risk children. However, universal preschool programs linked to public institutions of education only provide services for preschool-aged children, and thus do not address the need for ease of access to high quality childcare services for infants and toddlers. Therefore, ease of access might also translate to high quality childcare programs in neighborhoods where the poverty level and other indicators of risk are particularly high. Eliminating the obstacle of transportation for families without the means to access reliable and affordable transportation methods could significantly improve child outcomes as a result of increased exposure to high quality learning opportunities.

Exposure to Sensitive and Responsive Care Giving Practices. The structural quality indicators (i.e., low teacher-child ratios, on-going teacher training) that have been shown to support the process qualities (i.e., sensitive and responsive care giving practices) associated with secure teacher-child attachment relationships were in place at this agency (NICHD, 2002). Scores on the CLASS and relevant subscale scores on the ITERS bore this out. While the overall ITERS score for infant and toddler classrooms that participated in the current study was comparable to local QRIS ratings and indicated minimal-to-good overall quality, of particular noteworthiness are the ITERS subscale scores that reflect teacher-child interactions in the current study sample. That is, scores on ITERS subscales 3 (listening and talking) and 5 (interaction) were highest and most closely reflect the tenor of high quality teacher-child interactions that the CLASS is designed to measure. Furthermore, subscale 7 (Parents and Staff) scores were also higher than local QRIS scores. These subscales reflect teacher-child interactions as well as teacher supports that have been shown to be important for the development of secure teacher-child attachment relationships.

Teacher Supports

Average Teacher Benefits and Compensation

In order to achieve optimal and long-term child outcomes, high quality early childhood care and education environments in which young children are provided with responsive and sensitive care giving as well as continuity of care need to be the rule rather than the exception. Thus, childcare quality improvement initiatives should be primarily concerned with improving process quality. It has been well established that one of the most effective ways to improve process quality is to provide childcare teachers with living wages (Phillipsen, Burchinal, Howes, and Cryer, 1997; Scarr, Eisenberg, and Deater-Deckard, 1994). Providing childcare teachers with adequate pay has been shown to reduce rates of teacher turnover, which in turn improves continuity of care (Whitebook & Sakai, 2003). With regard to teacher turnover it is noteworthy to mention that over the course of the nine-month data collection period, two of the thirteen teachers participating in the current study were no longer employed at the agency. When results were presented to participating teachers fifteen months after the start of data collection a total of three teachers were no longer employed there. Two additional teachers, while still employed by the agency at 15-months post project enrollment, had opted to move to different classrooms and were no longer working with the same age group (infants and toddlers).

Infant and toddler teachers, alongside routine care giving responsibilities such as feeding and diapering/toilet training, are tasked with fostering the social, emotional, and cognitive growth of not just one but multiple children in their care. Yet while providing the care that contributes to the foundational skills in these domains of development, childcare teachers are all too frequently underpaid and over-worked. Across the board childcare professionals have a long history of being profoundly undervalued and underpaid, a trend that over the course of the past

twenty-five years has not seen much improvement (Whitebook, Philips, and Howes, 2015). Among childcare teachers, professionals who work with infants and toddlers earn the least when compared to educators working with older children (preschool, kindergarten, elementary-level), a pay gap that continues to widen as grade level ascends. Finally, when you compare ECE teachers' annual pay to comparably educated adults working in other sectors of the labor force, the gap widens considerably, particularly when comparing it to the average annual pay for men employed in other sectors of the labor force (Whitebook, Howes, and Phillips, 2014).

In order to ensure that infants and toddlers are receiving the quality of care that promotes the high levels of process quality that are linked to secure teacher-child attachment relationships and positive developmental outcomes in general, the wages of childcare educators need to be increased. Today, as historically been the case, childcare teachers fare only slightly better than the average food service worker (Occupational Employment Statistics Survey, Bureau of Labor Statistics as cited in Whitebook, Philips, & Howes, 2015). With the recent push to increase the minimum wage for traditionally low-wage and low-skill jobs, such as those that are commonplace in the food service industry, wages for food service workers will likely equal the wages earned by childcare teachers across many states in our country in the near future.

Study Limitations and Strengths

The current study has both limitations and strengths. The primary limitations include a small sample size both in the number of participants as well as number of childcare sites involved. With a sample size of 11 children and 13 teachers the findings from this study cannot be generalized to the broader population of children and their childcare teachers. Furthermore, this study is representative of a single therapeutic childcare agency and therefore the components

and quality of care observed in this setting cannot be generalized to other therapeutic childcare programs. Furthermore, there is no universal definition as to what constitutes "therapeutic" childcare. Therefore, it is likely that program structure as well as components and quality of care vary across therapeutic childcare programs in the same way they often do across non-therapeutic, or traditional childcare programs. However, one strength of the case study design is that it allowed for intensive naturalistic observation to be conducted over the course of three-months, which provided a level of depth, richness, and insight that would have been difficult to achieve in a large-scale study with a sample size large enough to allow for the generalization of findings. Access to teacher's notes of child behavior allowed for data triangulation and validity checks against observation data, another strength of the current study design.

Conclusion

Given what we know about the negative developmental outcomes that often accompany the experience of childhood maltreatment as well as what we know about the potential for the development of secure attachment relationships to act as a protective factor to mitigate these outcomes, the focal point of this study was to determine whether or not maltreated infants and toddlers were able to form secure attachment relationships with their primary childcare teachers. Indeed, the findings from this study suggest that maltreated infants and toddlers can and do develop secure attachment relationships with their primary teachers. The findings from the current study both add to and extend the literature base on attachment relationship development between maltreated infants and toddlers and their childcare teachers. First, the current study adds to the corpus of literature that suggests that maltreated infants and toddlers are able to form secure attachment relationships with alternative caregivers, including their childcare teachers.

Despite being exposed to high levels of psychosocial and environmental stressors as well as having experienced disordered parent-child attachment relationship patterns, the infants and toddlers in the current study sample who were able to engage in secure attachment behaviors with as well as develop secure attachment relationships with their primary childcare teachers. These findings provide support for a malleable attachment system during infancy and toddlerhood.

Second, the findings from this study expand the current literature base by providing an in-depth look at how teacher-child relationships develop over-time, highlighting the range of child behaviors that can be observed in maltreated infants and toddlers as well as the teacher behaviors that contribute to attachment security. Systematically observing and recording teacher and child attachment behaviors over time allowed distinct trends and patterns of attachment relationship development to emerge. One avenue for future research would be to explore the extent to which these patterns are observed in a larger and more ethnically diverse sample. To my knowledge this is the first study to examine teacher-child attachment relationship development among maltreated infants and toddlers and their childcare teachers in a therapeutic childcare context designed specifically with maltreated children in mind. Third, the current study details the components and quality of one therapeutic childcare agency as a primary prevention alternative to the parent intervention programs that are widely in-use among at-risk populations (Herman et al., 2011; Timmer et al., 2005).

In closing, Emmett's story is a poignant reminder that children need to consistently receive positive experiences to keep them on a positive developmental trajectory over time. This is especially true for children from underserved families and communities that have been singled out as "at-risk" due to a variety of economic and social risk factors (Akiba, LeTendre, &

Scribner, 2007). In order to continue to see positive growth over time all children, especially those who have been identified as at risk, need to start and continue to receive high quality educational opportunities. High quality educational environments in elementary, middle, and high school must follow high quality childcare environments in order to see max benefits over time. Providing high quality early childhood care and education is not a silver bullet for children from underserved communities and high-risk familial backgrounds. Rather, early childhood is just the beginning of a long-term investment in our future.

CHAPTER 10. TABLES AND FIGURES

Table 1. Descriptive Statistics of Participant Demographics

	n	%	*M*	*SD*
Teacher Demographics				
Gender	13			
Female	12	92.00		
Male	1	8.00		
Race/ethnicity	12			
European American/White	9	75.00		
Other	3	25.00		
Age	12		28.3	9.22
Household Income	9			
Under $30,000	4	44.40		
$30 - 39,999	2	22.20		
$40 - 49,999	2	22.20		
Above $50,000	1	11.10		
Child Demographics				
Gender	11			
Female	4	36.40		
Male	7	63.60		
Race/Ethnicity	11			
Bi/multi-racial	7	63.60		
European American/White	2	18.20		
African American/Black	1	9.10		
Asian/Pacific Islander	1	9.10		
Age (in months)	11		15.7	4.27
Number of children w/ previous childcare history	11	54.00		
Number of psychosocial/environmental stressors			10.2	2.04
Children in out-of-home care	2	18.18		

Table 2. Teacher and Child Attachment Behaviors by Security Groupings

Attachment Security	Attachment Behaviors	Child Attachment Behavior Themes	Teacher Attachment Behavior Themes
Secure	I. Tracking II. Proximity-seeking III. Cries/fusses	Tracking/Proximity-Seeking	Sensitivity Responsiveness
	IV. Positive initiate V. Positive respond	Positive Interactions	Positive regard
Insecure	VI. Ignores VII. Avoids VIII. Social inhibition IX. Emotional withdrawal	Avoid/Ignore	Intrusive/over control Negative regard Detachment/disengagement
	X. Indiscriminateness XI. Dysregulation XII. No help/comfort seek XIII. Clinging XIV. No Explore	Non-attachment	
Disordered/Disorganized	XV. Aggression XVI. Danger/provocative XVII. Hyper-vigilance XVIII. Inhibited exploration XIX. Emotion constriction XX. Vigilant of teacher XXI. Hyper-compliant XXII. Fear displease XXIII. No spontaneity	Secure Base Distortion	--

Table 3. Descriptive Statistics for Referral Source andPsychosocial and Environmental Stressors

	Referral	# PSES	*M*	*SD*	# Common PSES	*M*	*SD*
Brielle	CPS	9			4		
Eliana	ESA	7			4		
Emmett	ESA	13			8		
Grace	PHN	9			4		
Jacob	PHN	10			6		
Jason	PHN	12	10.2	2.04	8	5.36	1.50
Jonah	PHN	7			4		
Liam	ESA	12			5		
Sara	CPS	10			5		
Sean	ESA	12			5		
Troy	CPS	11			6		

Table 4. Parent-Child Relationship Classifications at Intake

	RPCL Quality	**PIR-GAS Score**	***PIR-GAS Classification***
Brielle	--	10	Documented Maltreatment
Eliana	Under-involved	15	Grossly Impaired
Emmett	Under-involved	38	Disordered
Grace	Under-involved	31	Disordered
Jacob	Under-involved	25	Severely Disordered
Jason	Anxious/Tense	37	Disordered
Jonah	Under-involved	25	Severely Disordered
Liam	--	--	--
Sara	Under-involved	38	Disordered
Sean	Under-involved	32	Disordered
Troy	Under-involved	31	Disordered

Table 5. Teacher-Child Attachment Relationship Security Scores (AQS) at T1 and T2

	T1			T2		
	r	*M*	*SD*	*r*	*M*	*SD*
Troy	0.59			0.58		
Eliana	--			0.61		
Grace	0.29			0.68		
Jason	0.5	0.55	0.22	0.76	0.61	0.26
Brielle	0.34			0.72		
Emmett	0.71			0.07		
Jacob	0.86			0.87		

Table 6. Attachment Q-Sort (AQS) Subscale Classifications

		T1 Security				T2 Security			
Category	Combination	*n*	*M*	*SD*	Range	*n*	*M*	*SD*	Range
Secure	1 on base, 1 on comfort, or 1 on harmony and security score ≥.33	5	0.6	0.2	.34 - .86	6	0.7	0.11	.58 - .87
Near Secure	1 on base, 1 on comfort, or 1 on harmony and security score >0 and <.33	1	--	--	--	1	--	--	--

Table 7. Descriptive Statistics Teacher Education Level, Training and Experience

	n	*%*
Teacher education level	13	
Associate Degree (A.A./A.S.)	2	15.40
Bachelor Degree (B.A./B.S.)	10	76.90
Master Degree (M.A./M.S.)	1	7.70
ECCE training/certification	12	
No	9	75.00
Yes	3	25.00
ECCE continuing education credits	12	
No	11	91.70
Yes	1	8.30
ECCE conference attendance	13	
No	12	92.30
Yes	1	7.70
Years working in any childcare setting	13	
Less than 1 year	1	7.70
1 - 3 years	2	15.40
4 - 5 years	3	23.10
6 - 10 years	3	23.10
More than 10 years	4	30.80
Years working in present childcare setting	13	
Less than 1 year	4	30.80
1 - 3 years	4	30.80
4 - 5 years	1	7.70
6 - 10 years	1	7.70
More than 10 years	3	23.10

Table 8. Descriptive Statistics of CLASS Domain and ITERS Overall and Subscale Scores

	n	***M***	***SD***
Infant CLASS domain score	3		
Relational climate		4.73	1.55
Toddler CLASS domain scores	2		
Emotional and Behavioral Support		6.55	0.64
Engaged Support for Learning		5.05	0.35
ITERS scores	5		
Overall		4.34	0.26
Subscale 1 (Space and Furnishings)		4.76	0.26
Subscale 2 (Personal Care Routines)		1.6	0.22
Subscale 3 (Listening and Talking)		6.4	0.55
Subscale 4 (Activities)		2.96	0.54
Subscale 5 (Interaction)		6.12	0.79
Subscale 6 (Program Structure)		4.3	1.07
Subscale 7 (Parents and Staff)		6.00	0.00

Table 9. Teacher Trainings Topics Organized by Training Theme and Category

Training Themes	Training Categories	Training Topics
Orientation	I. New Hire Orientation	i. New Hire Orientation, Part 1 ii. New Hire Orientation, Part 2 iii. New Hire Orientation, Part 3
Annual Review /Recertification	II. Safety in the Classroom	iv. Right Response, Part 1 v. Right Response, Part 2
	III. Safety on the Road	vi. Car Seat Safety vii. Driving 15-Seat Passenger Vans/Biometric Screening
	IV. Teacher-Child Health and Wellness	viii. CPR/First-Aid ix. Blood-born Pathogens and Personal Safety Curriculum x. Making a CPS Referral xi. Disclosures
	V. Program Preparation	xii. Transition Planning xiii. Graduation Planning xiv. Documentation
	VI. Child Development	xv. Childhood Trauma and its Effects on Development xvi. Brain-Based Movements to Build Foundational Learning Skills, Part 1 xvii. Brain-Based Movements to Build Foundational Learning Skills, Part 2
Special Topics	VII. Teacher Development	xviii. Cultural Competency xix. Ethical Dilemmas
	VIII. Program Development	xx. Second Step Curriculum xxi. High Scope Curriculum
	IX. Employee Benefits	xxii. Open Enrollment
Events	X. Team Development	xxiii. Team Development Day xxiv. Staff Picnic
	XI. Program Development	xxv. Program Fundraiser

Figure 1. Case Study Conceptual Model.

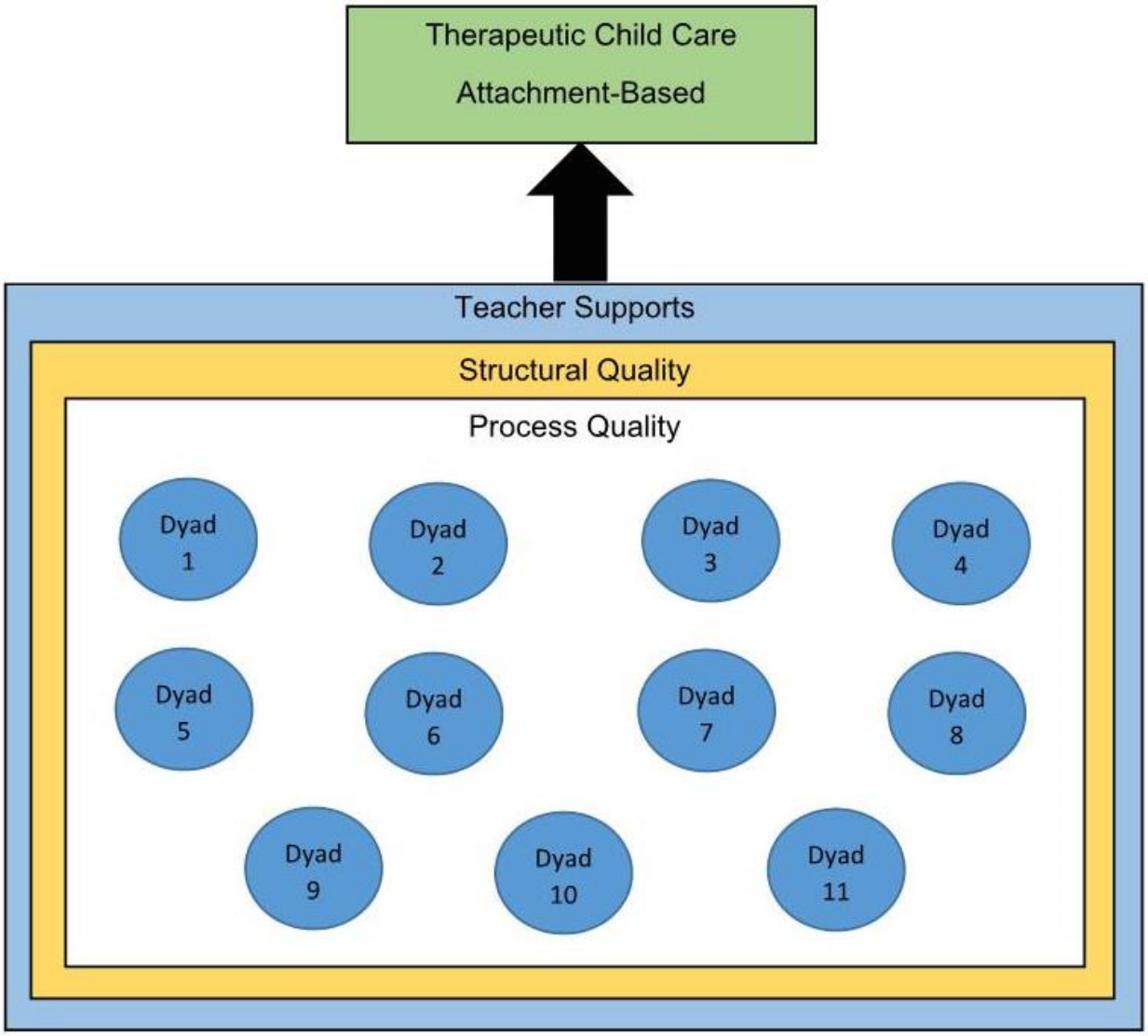


Figure 2. Secure attachment behavior trends over time – Low/Increasing.

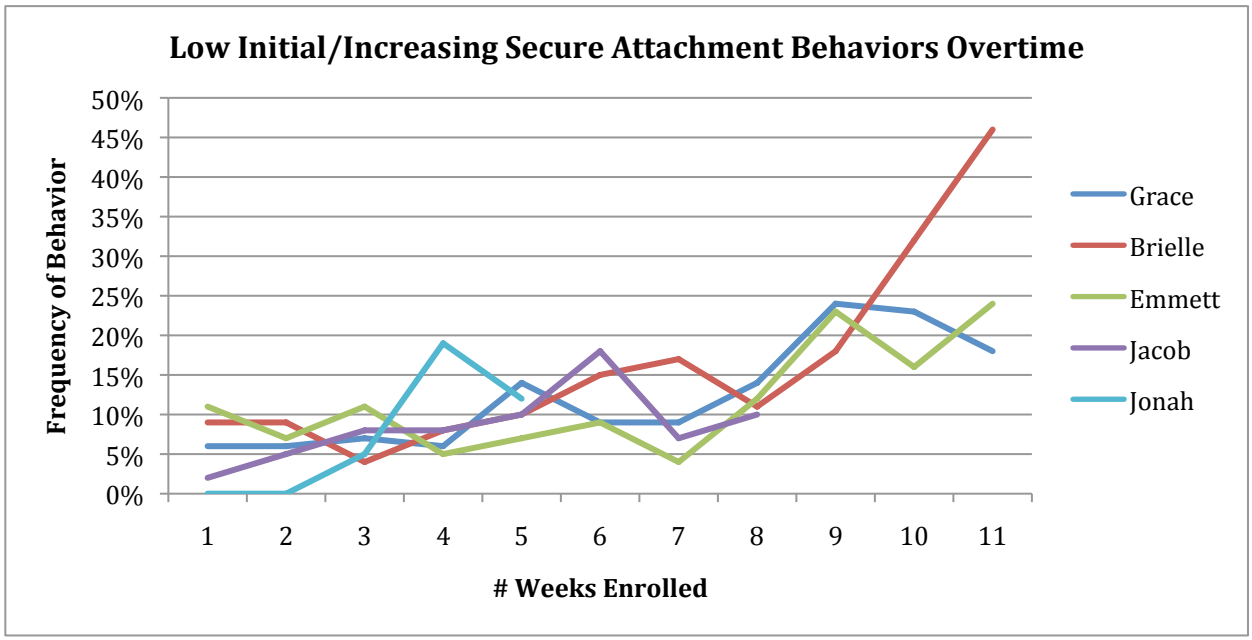


Figure 3. Secure attachment behavior trends over time – High/Declining.

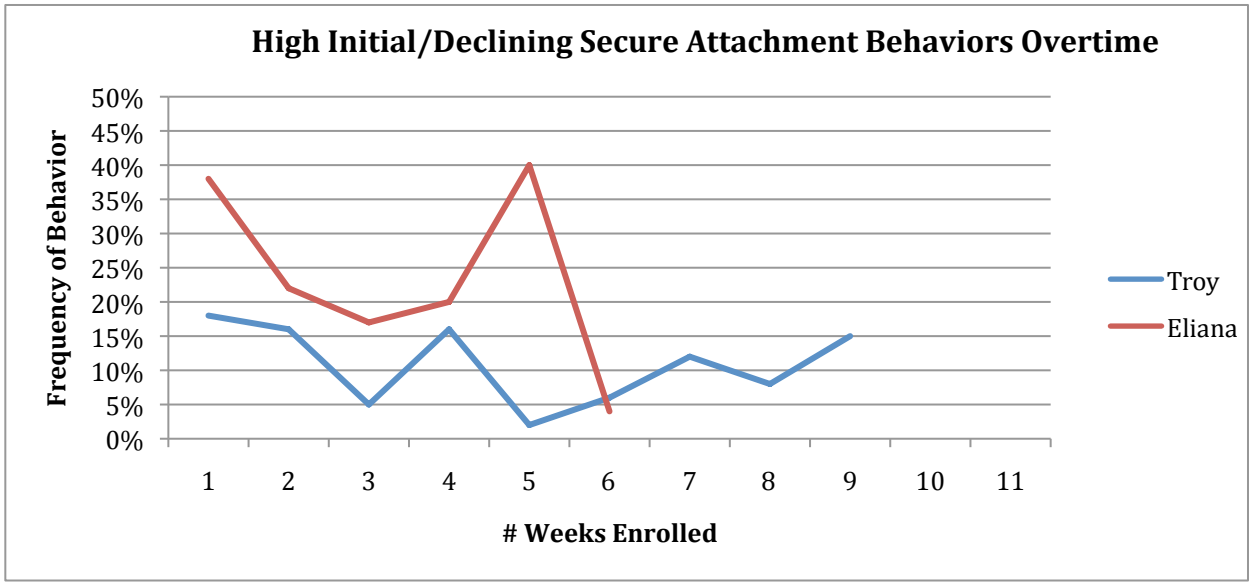


Figure 4. Secure attachment behavior trends over time – Static.

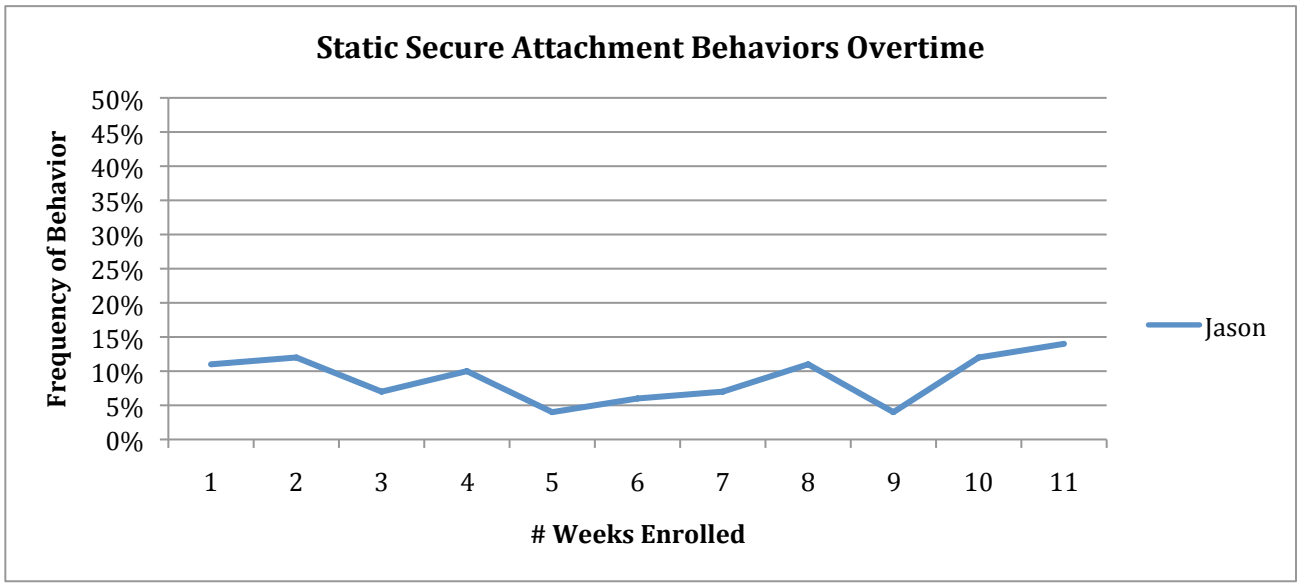


Figure 5. Insecure Attachment Behavior Trends Overtime – Low/Steady.

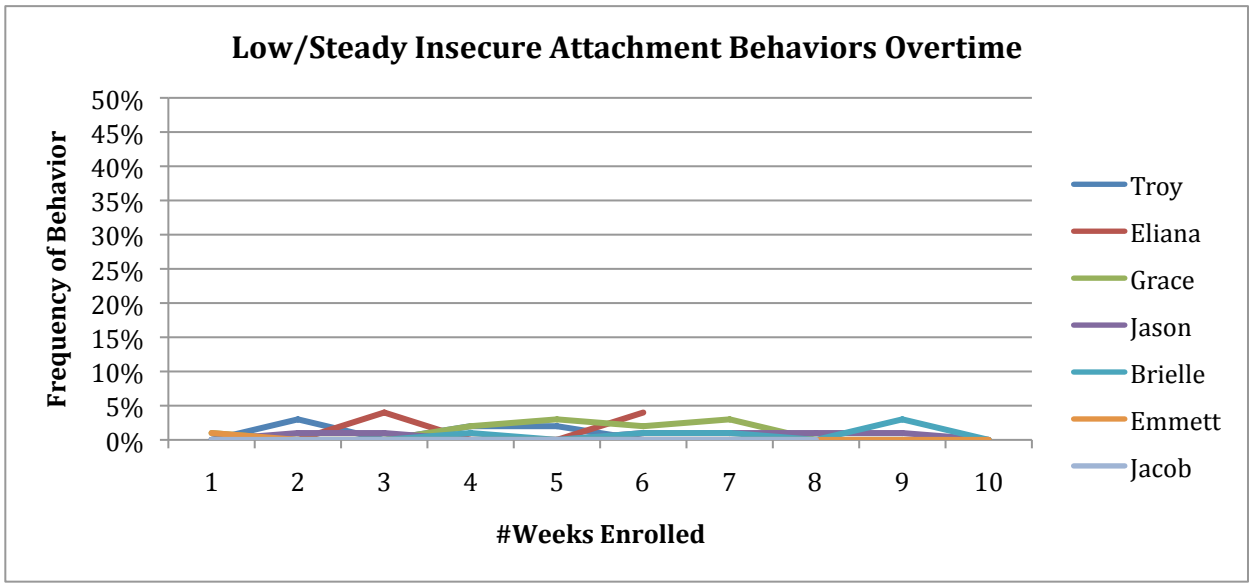


Figure 6. Insecure Attachment Behavior Trends Overtime – High/Declining.

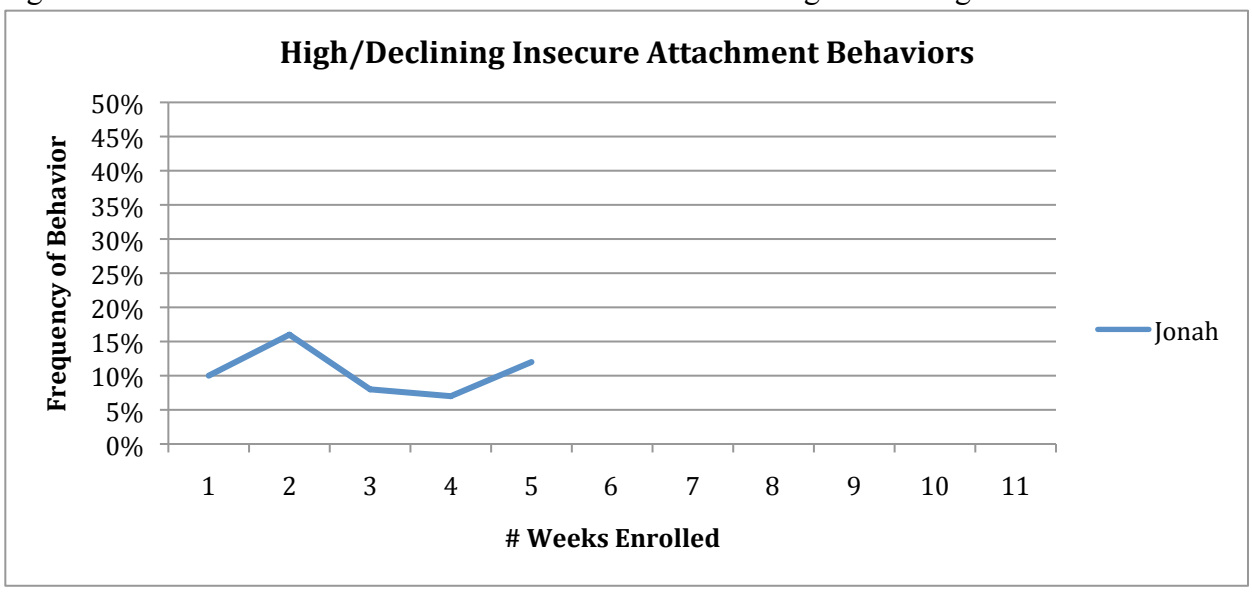


Figure 7. Disordered Attachment Behavior Trends Overtime – Low/Steady.

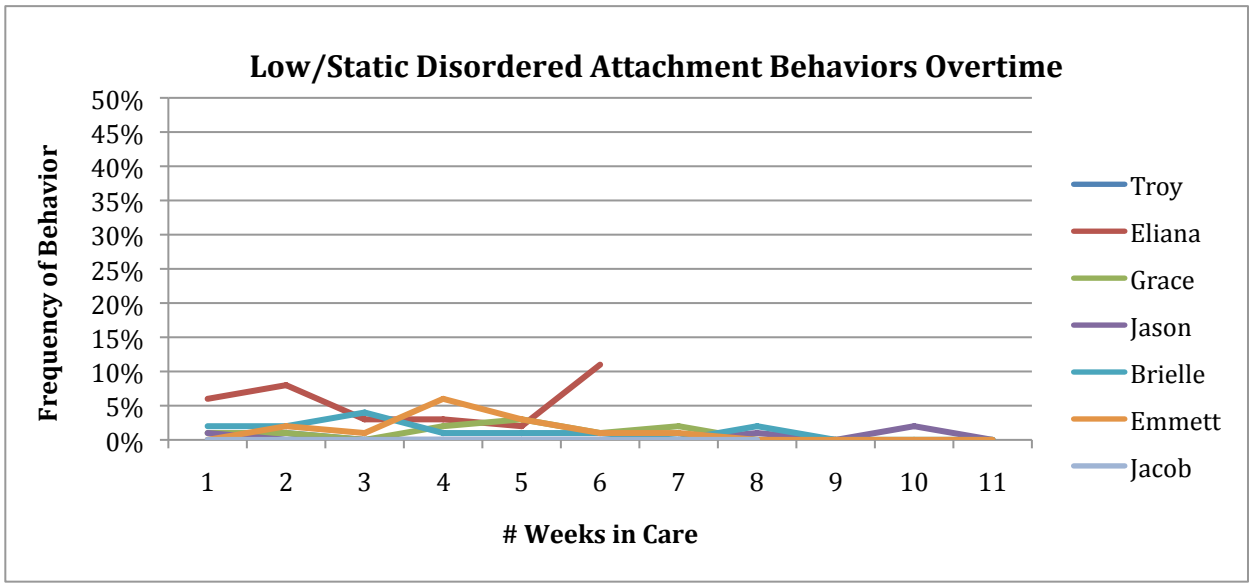


Figure 8. Disordered Attachment Behavior Trends Overtime – High/Declining.

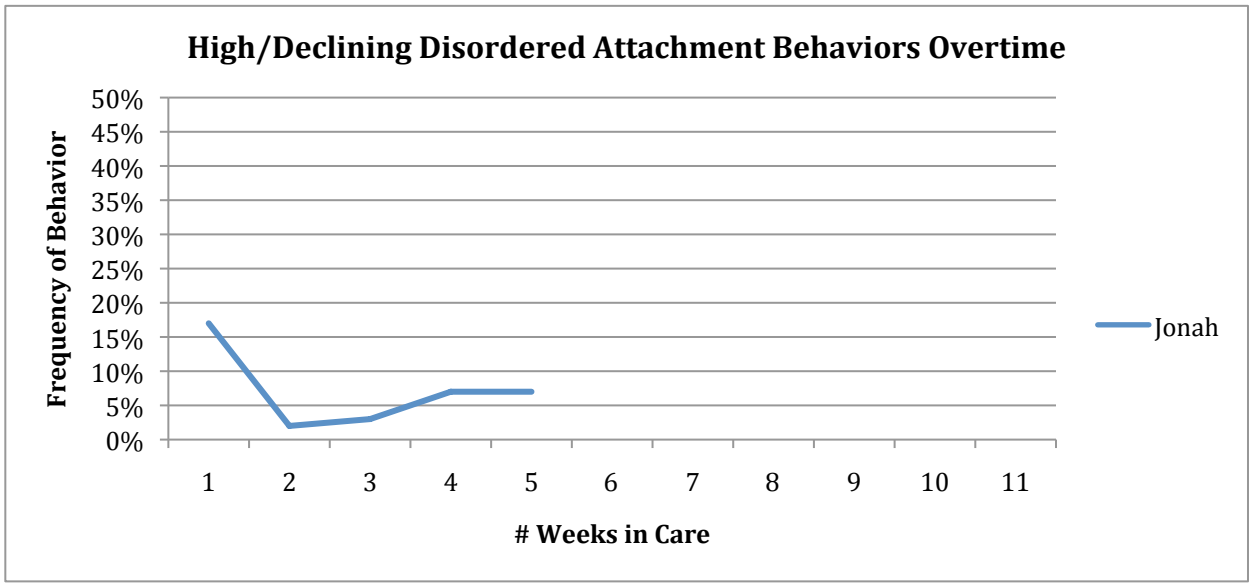


Figure 9. The Teacher-Child Attachment Relationship Development of Zoe and Emmett.

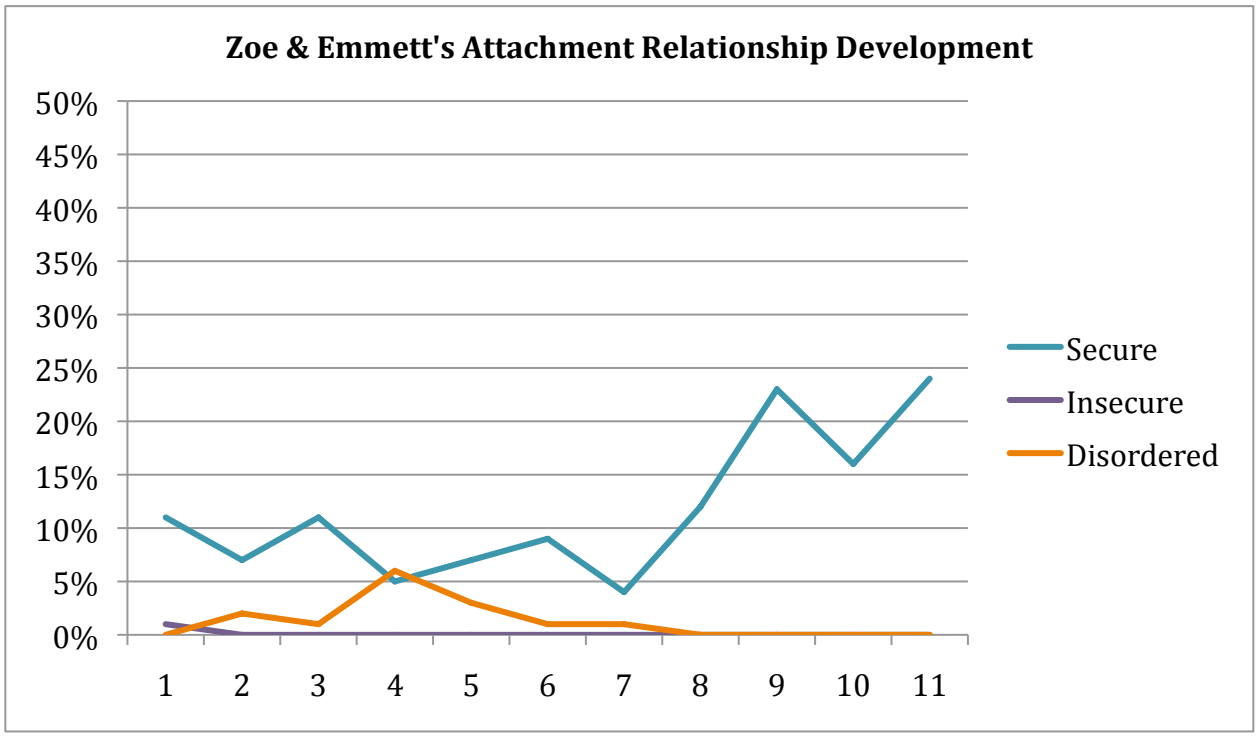
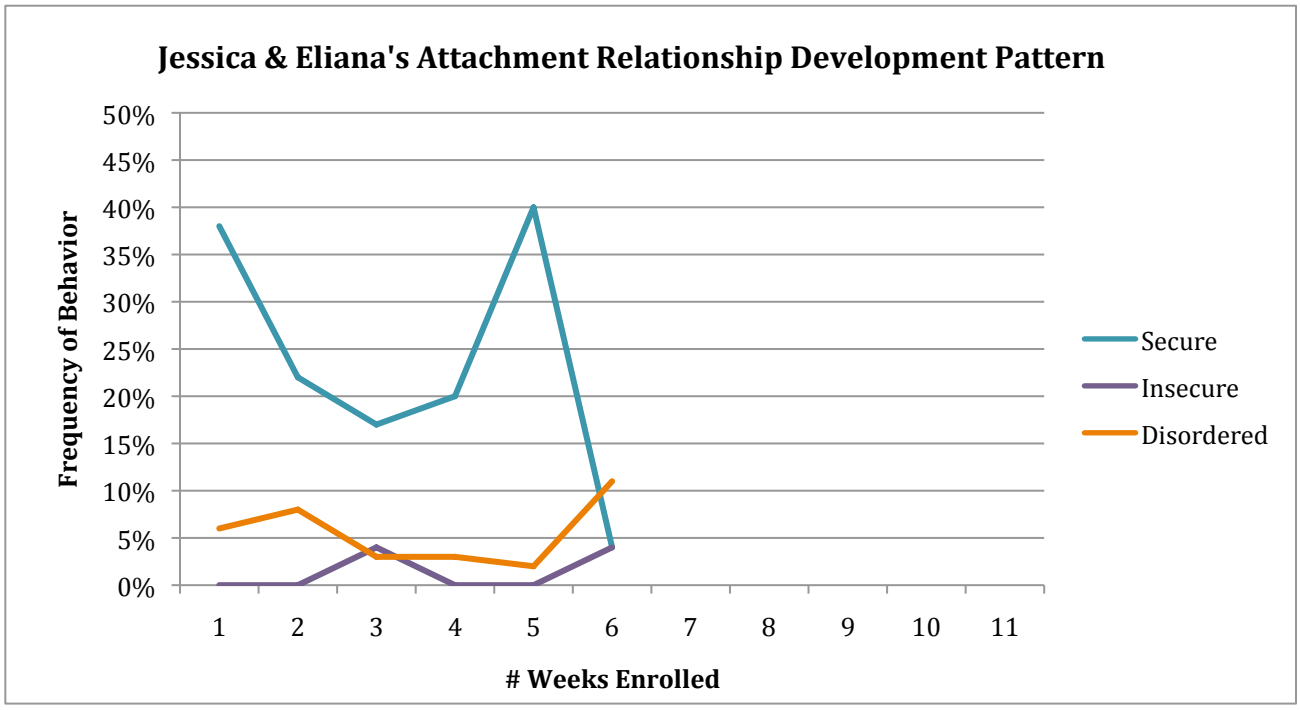


Figure 10. The Teacher-Child Attachment Relationship Development Pattern of Jessica and Eliana.



CHAPTER 11. REFERENCES

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