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The overall purpose of this study was to explore and describe teacher/caregiver practices that may be considered supportive of toddlers learning to regulate their emotions and behaviors. Specifically two foci were examined. First, this research study explored and described practices teachers/caregivers used to create relationships with toddlers. Second, it explored and described practices and strategies teachers/caregivers used when responding to a child who was distressed, upset, or crying.

Using a case study design, three lead toddler teachers/caregivers from separate classrooms (three cases) participated in the study along with the 8 to 10 children enrolled in each classroom and their parents. Through teacher observation, teacher and parent interviews, and child temperament assessment, insight was gained into the patterns of practices and strategies teachers used with the toddlers to create relationships and to respond when children were upset or crying.

While results indicated there were many practices teachers used with young children, there were certain patterns of teachers' practices that were high quality and may be considered to be very supportive of growth promoting relationships with young children and calming children who were upset or crying. These practices lay the foundation for toddlers learning emotion regulation and therefore, are highly influential and desirable teacher practices. Additional outcomes regarding the importance of teachers/caregivers being both physically and emotionally present with children, sitting down on the level of the children and engaging in reciprocal interactions were found.

Future studies are needed on the environmental aspects of teacher practices influencing the early development of emotion regulation.

TEACHER/CAREGIVER PRACTICES INFLUENCING THE EARLY
DEVELOPMENT OF EMOTION REGULATION
IN TODDLERS

by

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Approved by

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This dissertation is dedicated with great love and appreciation to my parents Joseph and Phyllis Sullivan for their ongoing love, support, prayers, and sense of family and to my children, Eric and Annie Gloeckler, who are the light of my life.

APPROVAL PAGE

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CHAPTER I

INTRODUCTION

Overview and Rationale

This research study begins the discussion and process of examining the environmental aspects of the construct of emotion regulation by exploring and describing Caucasian lead teacher practices that create relationships with toddlers and practices used to calm down children who were upset, distressed, or crying. This study will address the need for studies of emotion regulation using qualitative, interpretive methods (Campos, Frankel, & Camras, 2004). The study will further address the need for additional studies to be conducted within the natural environment (Bronfenbrenner & Morris, 1998) including the context of child care with toddler teachers/caregivers as a unique and unexplored area of research. While studies of emotion regulation have been conducted in laboratory settings with young children and their parents, there is a lack of studies on teachers/caregivers practices that may be supportive of toddlers learning to regulate emotions and behaviors.

The early development of emotion regulation occurs within the context of supportive early care giving relationships (Calkins & Fox, 2002; National Research Council & Institute of Medicine, 2000; Weinfield, Sroufe, Egeland, & Carlson, 1999). It has also been reported, that behavior problems and early regulatory deficits are said to

have their origination in the caregiver-child relationship (Carlson, Sampson, & Sroufe, 2003).

Early relationships lay the foundation for how young children learn to relate to others and regulate increasingly complex emotions and demands for appropriate social behavior (National Research Council & Institute of Medicine, 2000). Secure attachment relationships with responsive teachers/caregivers leads to positive developmental outcomes for children. Research has shown that young children with secure attachments to their caregivers are more likely to get along better with peers, have greater coping behaviors when under stress, and do better in school. Additionally, they are also more likely to have better self-regulation skills than others with insecure relationships (Gunnar, Brodersen, Nachmias, Buss, & Rigatuso, 1996; Hay, Payne, & Chadwick, 2004; National Research Institute & Council of Medicine, 2000).

Children with insecure attachments to their caregivers may have challenges with expressing and regulating emotions and behaviors (Bowlby, 1969; National Research Council & Institute of Medicine, 2000, Weinfield, et al., 1999). They may be at risk, not only for difficult behaviors and problematic relationships but for the development of Attention Deficit Hyperactivity Disorder (ADHD) (Calkins & Dedmon, 2000). Research also demonstrates there are increasing numbers of very young children medicated for difficulties in regulating emotions and behaviors (Knitzer, 2000; Zito, Safer, dosReis, & Gardner, 2000).

Concern has also been raised over the increasing numbers of children entering child care at very young ages and staying for longer periods of time each day (Ehrle,

Adams, & Tout, 2001; Oser & Cohen, 2003). Long hours at child care means caregivers may act as primary teachers of emotion regulation skills to young children.

Teachers/caregivers daily create both the physical and emotional context for child learning and therefore, have a critical role to play in the lives of young children.

White and Howe (1998) reported that teachers/caregivers are instrumental in setting the emotional tone and climate of the classroom and are vital to promoting the early social-emotional development of young children. The National Association for the Education of Young Children (NAEYC) (Bredekamp & Copple, 1997) also reported on the primary importance of an emotionally positive environment to children's development. While it is reported that teachers are highly influential to young children's healthy emotional development, there is a dearth of studies on the emotional environment of the classroom (Mill & Romano-White, 1999). There is also a lack of studies on the development of emotion regulation in natural settings (Campos et al., 2004), particularly teacher/caregiver practices that may be considered supportive of toddlers learning to regulate emotions and behaviors. Bronfenbrenner (1979) and Bronfenbrenner and Morris (1998) also assert the need for children to be studied in the natural environments where they spend their days, such as child care.

Purpose of Study and Research Questions

The overall purpose of this research study was to examine, explore, and describe teacher/caregiver practices that might be considered supportive of toddlers learning to regulate their emotions and behaviors. Specifically, two foci were examined. First, the study explored and described practices teachers/caregivers used to create relationships

with toddlers. Second, it examined and described practices teachers/caregivers used when responding to a child who was upset, distressed, or crying.

A case study design was employed for this study. Methods used to examine and explore these two foci were persistent teacher observation, parent and teacher interviews, and child temperament assessment. Additional sources of information were obtained from the child care center director's and teacher's demographic data sheets and the teacher's professional development history for the past 3 years. Trustworthiness was established by an assistant researcher who administered the Caregiver Interaction Scale (Arnett, 1989), an auditor who conducted separate analysis of data and theme development and triangulation of the data sources.

Theoretical Framework

Bio-ecological systems theory, which views the environment as a critical aspect of children's growth and development, provides the framework for this research study (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998). As such, Bronfenbrenner recognized natural contexts and settings (the physical and social environments) within which children live as influencing development. The bio-ecological model views the child as developing within a complex system of relationships that are affected by expanding circles of environmental contexts. It acknowledges the many levels of environmental influence on children's behavior and development. All systems at all levels (micro, meso, exo, and macro) are continually interacting, dynamic, and changing (Bronfenbrenner & Morris, 1998).

In the bio-ecological model there are four circles or levels of environmental influence starting with the child at the center of the microsystem level interacting with, and surrounded by, family, neighbors, childcare teachers/caregivers, and ever-widening circles of influence to the macrosystem, where the child and family are influenced by the culture, customs, laws, and rules of the society in which they live. Each level of environmental context influences the child and the child influences each, either directly or indirectly.

At the microsystem level, for example, the child and his/her teachers, through interaction and participation in activities, are seen as having bidirectional influences on each other. The child is impacting the adults in his/her environment and the adults are influencing the child's development, so there is a reciprocal effect. The child's temperament may, for example, have an effect on the kinds of interactions the child has with teachers/caregivers, thus influencing the ability to regulate emotions. A chronically fussy child may actually cause caregivers to reject or rebuff the child's bids for attention, a quality Bronfenbrenner and Morris (1998) call demand characteristics of the person. On the other hand, the teacher's knowledge of child development may affect her/his ability to teach and understand children's needs to move around and have free play time, also essential to learning emotion regulation.

The mesosystem is comprised of linkages between different settings at the microsystem level. Examples are connections between the home and child care, or church and home. These are settings in which the child is an active participant and directly influences the activities and people in the settings, and where the child's experiences

directly affect him/her. It may be that the child's experiences at child care teach similar values taught at home, and are therefore supportive of the family's value system. It may be that the parents and teacher collaborate and discuss setting limits with the child, teaching self-help skills and strategies for calming and comforting him/herself, leading to self-regulation of emotions. These again are linkages between the two settings of home and school at the mesosystem level.

The exosystem is made up of processes and settings where the child may not be a direct participant, such as a parent's work place, but the child is indirectly affected by events, policies, and attitudes of the setting. The parent's place of business may have policies on parental leave that are harsh and restrictive. As parents experience a difficult time with their boss regarding taking leave to respond to a child who is sick at child care, parents may be less able to be responsive to their child's needs, impacting the child's physical and emotional well being.

The macrosystem is the largest circle of environmental context and is made up of the culture, customs, laws, and rules of the society in which the child and family live. Examples of the macrosystem's effect on the family and child may be through child care rules and regulations, or lack of them, from the state and federal government. An example may be that many child care centers operate on a shoestring budget with little or no support from the state or federal government, which influences the salary teachers are paid. This leads to frequent teacher turnover and children having multiple teachers/caregivers, which may have a profound influence on young children's continuity

of care, sense of safety, security, patterning for relationships, and emotion regulation skills.

The extraordinary effects of culture on the child and family are also included in the macrosystem level. The holidays, celebrations, beliefs, and values of a particular group of people, as well as the specific skills and behaviors that are taught and passed on from generation to generation, all have a profound impact on child and family. As The National Research Council & Institute of Medicine (2000) noted, culture permeates everything and its effects on child development are all-encompassing. Culture has a direct effect on the expression of emotions and emotion regulation as parents and teachers socialize children to particular emotions valued in their culture and the acceptable emotional displays allowed in their society.

In 1998, Bronfenbrenner and Morris set forth the concept of “proximal processes” as central to bio-ecological theory. As such, they assert that the environment and process are different and distinct from one another and that proximal processes are at the core of the new model. Proximal processes are defined as interactions between people, objects, and symbols which are repetitive and therefore pattern forming and which increase in complexity over time. These processes are said to be bidirectional with each person, object, or symbol affecting one another. Further, they asserted that it is within these interactions, the processes between people, objects, and symbols that development occurs in a very powerful way. They identified proximal processes as the “engines of development” (p. 996).

The four components of the bio-ecological model are process, person, context, and time. Proximal processes are the core concept of the model and are influenced by person characteristics, contextual characteristics, and time. Person characteristics include positive and negative qualities that influence whether proximal processes will occur. For example, the curiosity or initiative of a child that may invite interaction with others, or on the opposite end of the spectrum, the lack of ability to pay attention that causes a child to lose interest in interaction during an activity.

Another important element from bio-ecological systems theory is the awareness and acknowledgement of the biological forces within each person, such as child temperament, that impact the child's ability to relate to the social and physical environment. Bronfenbrenner asserts that these biologically-based aspects of a person clearly influence the proximal processes in which they engage and the environments they choose. As an example, a child who has a shy temperament may not participate and withdraw from participation in a center area if other children are playing there.

The characteristics of the contexts in which children live affect their participation in certain types of proximal processes. The presence or lack of materials and toys in a particular child care setting may impact the ability of a child to play and explore. Bronfenbrenner and Morris (1998) further noted that environments that are reliable, stable, and consistent are said to be supportive of growth-promoting interactions and development, while environments that are chaotic, disorganized, and unstable are known to inhibit proximal processes and produce growth-inhibiting interactions and development.

Time is the third factor having an effect on proximal processes. Time is called the chronosystem in the bio-ecological model. Bronfenbrenner and Morris (1998) reported that proximal processes must occur routinely and repetitively over a substantial period of time, not just a singular event, but routine interactions or activities that develop patterns of behavior. This, Bronfenbrenner states, is where development occurs in a very powerful way. To illustrate, the teacher who takes time each day to read to the children and sing songs and rhymes establishes a routine and pattern of interaction, a proximal process that occurs regularly.

Another aspect of time in the bio-ecological model is called historical time. Historical time and life events are another aspect impacting proximal processes. An example of a life transition or event is the divorce rate in the United States, which has increased the number of single heads of households and the number of women and young children living in poverty. These events impact the type and amount of proximal processes that occur with both parents/teachers and children. For example, an increased number of women in the work force will result in a greater need for day care and after school child care.

This research study will be conducted at the microlevel to allow for an in-depth examination and exploration of teacher/caregiver practices used to create relationships with toddlers, and calm down children who are upset, distressed, or crying. It acknowledges that each teacher/caregiver brings influences from the other levels of the bio-ecological model to his/her work at the child care center, and that children and families do as well.

To summarize, the purpose of this study was to explore and describe teacher/caregiver practices that actively create relationships with toddlers, and calm down toddlers who are upset, crying, or in distress. The goal was to provide “thick descriptions” (Lincoln & Guba, 1985) of teacher practices that provide a window into how early care giving relationships are created. These practices also shed light on how the transmission of a sense of trust, safety, and security is passed from teacher to child as the underpinnings for toddlers learning to regulate emotions. Descriptions of teacher practices that lead to patterning of toddlers in ways that were either growth promoting (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998) and developmentally appropriate (Bredekamp & Copple, 1997), or growth inhibiting and inappropriate, provide clues to the early development of emotion regulation. Likewise, descriptions of how the children responded to the teachers’ practices and care giving style, and managed different levels of arousal, emotions, and behaviors are presented.

The next chapter will provide a review of the literature for the study of teacher practices influencing the early development of emotion regulation. It will first present early relationships as the context within which toddlers learn to regulate emotions and behaviors. Definitions of early relationships, emotion, and emotion regulation are followed by the current state of research in this important area of early development. Topics such as attachment, temperament, culture, and brain development as they relate to emotion regulation are included.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

Infants come into the world ready to interact and connect with the world, full of promise and potential. They are eager to engage their parents, teachers and caregivers with their needs, desires, joys and sorrows, their excitement and their laughter. Infancy is a unique time, unlike any other in human experience, one that proceeds at a rapid pace and one that is critical to later physical, cognitive, and socioemotional development.

As with all domains of development there is a sequence of emotional development that takes place from the earliest moments after birth with parents warmly holding their new infant to the development of early emotions such as joy and sadness, and over time, through continued responsive caregiving the development of increasingly complex emotional expressions and regulation. As infants grow to be toddlers they become increasingly mobile thereby creating new opportunities for exploration in their environment. They also are learning the names of emotions, how they look on another person's face and how they feel in their own bodies as they are expressed. Toddler strategies used to regulate emotions may involve distracting themselves with a toy when needed, turning away from a toy if it doesn't work, raising arms up to a caregiver to be comforted and reassured, vocalizing or averting gaze. It is a time of tremendous growth

and change as toddlers learn about interaction, relationships and emotional expression and regulation.

The early development of emotion regulation is a critical aspect of social emotional development in young children (Berk, 2002; Bronson, 2000; Kopp, 1989; Tronick, 1989). The National Research Council & Institute of Medicine (2000) names self-regulation as a foundational principle of child development, one that influences all aspects of it, while Carlson et al. (2003) assert that many early problems with infant/toddler self-regulation have its genesis in the caregiver-child relationship.

Research demonstrates that young children with developmentally and socially appropriate regulatory skills get along more easily with their peers and have better coping behaviors when under stress (Hay et al., 2004; National Research Council & Institute of Medicine, 2000). Research has also shown that infants/toddlers who are not actively supported in acquiring self-regulatory skills, have a greater chance of being more easily frightened, anxious and impulsive (Calkins & Fox, 2002). Furthermore, it is reported that boys have more difficulty regulating negative emotions than girls (Calkins, Dedmon, Gill, Lomax, & Johnson, 2002, Stifter & Spinrad, 2002). There are also links between problems in the functioning of young children's emotion regulation skills with the development of Attention Deficit Hyperactivity Disorder (Calkins & Dedmon, 2000). There are also increasing numbers of very young children with emotional and behavioral disorders who are medicated for difficulties with self-regulation (Knitzer, 2000; Zito, et al., 2000). Learning to effectively regulate and manage one's emotional and behavioral states early in life mediates overall development and nurtures later abilities to

successfully manage increasingly complex interactions and demands for appropriate social behavior. When these skills are not learned or do not fully develop, the child may have difficulty acquiring appropriate social skills and therefore be at risk for problematic interactions, challenging behaviors, and/or disjointed relationships.

Concern is also raised by the fact that we have increasing numbers of very young children entering child care at very young ages and staying for longer periods of time each day (Ehrle et al., 2001; Oser & Cohen, 2003). Child care provides a unique setting for the socialization of emotions and development of emotion regulation. Campos et al. (2004) reported that emotions occur in context and therefore need to be understood in context. Child care is a natural setting where many children spend long hours and learn with or without teacher support, how to regulate and manage increasingly complex emotions, interactions and behaviors. Child care therefore provides a very good setting for a study of teacher practices and emotion regulation.

This review of the literature will start with definition of terms. It will be followed by a review of the importance of early relationships to the healthy growth and development of young children, as relationships provide the core context within which young children learn to regulate emotions and behaviors. Included in this discussion are attachment theory, temperament, nonverbal communication, and key characteristics of high quality teachers/caregivers. The role of brain development and culture are also explored as they influence early relationships and emotion regulation. The last section will discuss emotion regulation inclusive of the current state of research on this important area of early development.

Definitions

Definitions of early relationships, emotions and emotion regulation are presented to provide a frame of reference for the research. The National Scientific Council on the Developing Child (2004) reports that children grow “within an environment of relationships” (p. 1). Early childhood literature is filled with books and articles related to the effect of quality early relationships on a child’s ability to relate to others later in life (Bredenkamp & Copple, 1997; Bowlby, 1969; Bronson, 2000; Perry, 1997, 2002; Sroufe, 1995; Thompson, 2001). The *American Heritage College Dictionary* (Pickett, Pritchard, & Leonesio, 2002) defines relationship as “a particular type of connection between people related to or having dealings with each other” (p. 1173). Early relationships are created by and during interactions between adults and young children and provide the foundation for toddlers learning to regulate emotions and behaviors. Therefore, the definition of early relationships for this study on emotion regulation is any behavior, practice, interaction, or communication between the teacher and young child.

There have been many definitions of emotion and emotion regulation presented in the literature with no consensus. Witherington, Campos, and Hertenstein (2001) defined emotions as “the processes by which an individual attempts to establish, change, or maintain his or her relation to the environment on matters of significance to the person” (p. 429). The *American Heritage College Dictionary* (Picket et al., 2002) defines emotion as “a mental state arising spontaneously rather than through conscious effort; a feeling” (p. 459). Cole, Martin, and Dennis’s (2004) definition is “Emotions are appraisal-action readiness stances, a fluid and complex progression of orienting toward the ongoing

stream of experience” (p. 320). For the purpose of this research study the operating definition of emotions will be that of Witherington et al. (2001), as it describes a process of responding and relating to the environment whether social or physical.

There have also been a number of different definitions of emotion regulation. In fact, the definition of emotion regulation has evolved so quickly over the past few years that Witherington and colleagues’ (2001) definition of emotion is similar to a present definition of emotion regulation. There is also currently discussion on whether emotions as regulating interactions between people can be separated from emotions as regulated, the avoiding and maintaining, amplifying of emotions. Campos et al. (2004) noted how even as an emotion is about to be expressed, emotion regulation is already occurring. Furthermore, the authors asserted that emotion as regulating and emotions as regulated are one and the same, and operate within the same emotional system. A few definitions of emotion regulation are presented followed by the definition used for this research study.

Grolnick, Bridges, and Connell (1996) defined emotion regulation as “a set of processes involved in initiating, maintaining, and modulating, emotional responsiveness, both negative and positive” (p. 928), while Cole et al. (2004) defined emotion regulation as changes that occur when emotions are activated. Cole et al. assert there are two aspects of emotion regulation: emotions as they rise and are expressed (regulating), and emotions as they are changed, expanded upon, or inhibited (regulated). Eisenberg and Spinrad (2004) define emotion regulation as:

the process of initiating, avoiding, inhibiting, maintaining, or modulating the occurrence, form, intensity or duration of internal feeling states, emotion-related physiological, attentional processes, motivational states, and/or the behavioral

concomitants of emotion in the service of accomplishing affect-related biological or social adaptation or achieving individual goals. (p. 338)

The definition of emotion regulation provided by Eisenberg and Spinrad (2004) above will be used for the current study. It is the researcher's perspective that this definition provides a window into the processes of how emotional regulation occurs, includes the cognitive appraisal and goal of the individual as well.

Early Relationships

Early relationships lay the foundation for healthy growth and development in all domains; therefore, the first role of an early childhood teacher/caregiver is to establish a meaningful relationship with the children in her/his care (Bowlby, 1969; National Research Council & Institute of Medicine, 2000; Sroufe, 1995, 1996; Thompson, 2001). As mentioned earlier, children grow "within an environment of relationships" (National Scientific Council on the Developing Child, 2004). A plethora of literature exists demonstrating the importance of early relationships to the quality of a child's later relationships (Perry, 1997, 2002; Sroufe, 1995; 1996; Thompson, 2001). Within meaningful growth promoting early relationships with primary caregivers, infants/toddlers learn to trust (Erikson, 1950), learn to regulate emotions and behaviors, and how to relate to others in socially appropriate ways. Likewise, they learn to take care of themselves, problem solve, and develop empathy. Therefore, the establishment of a nurturing relationship between the teacher/caregiver and the infant/toddler is essential (National Research Council & Institute of Medicine, 2000).

Attachment Relationships

Currently, the most prominent account of early relationships comes from attachment theory (Bowlby, 1969). Bowlby presented a model on how caregiver-child interactions and relationships influence children's developmental outcomes. Bowlby asserted that infants are born with innate biological tendencies to connect and "attach" to their primary caregiver. Bowlby identified innate reflexes and signaling behaviors that infants use to keep their parents/caregivers in close proximity to them, ensuring their survival. When interactions are repeated again and again, a pattern of interaction and relationship develops where the infant begins to anticipate and predict the behavior and practice of the adult. Warm, responsive, predictable care by the caregiver supports the development of a close attachment relationship between the infant and caregiver (Bowlby, 1969; Perry, 1997, 2002; Thompson, 2001; Weinfield et al., 1999).

Recently, it has been reported that the pattern of interaction and relationship develops on the biological, neurological, and psychological levels (Schore, 1994, 2001; Siegel, 2001). Through repetitive interaction during daily routines, relationships develop and the infant begins to anticipate and predict the caregiver's behavior and match states with them. The caregiver is in turn entraining the infant in relationship, matching states, and attuning her/his self to the child (Schore, 1994, 2001; Siegel, 2001). Through attunement of the caregiver to the child, the caregiver's more mature internal states are used to support and regulate the child's positive and negative emotions (Siegel, 2001). The child, through this alignment of internal states, is becoming regulated by direct connection with the caregiver's mind and states (Siegel, 2001). Both Thompson (1994)

and Sroufe (1996) noted how teachers/caregivers act as external regulators of children's behaviors and emotions until such time as the children can begin regulating their own selves.

Another hallmark of attachment is Mary Ainsworth's Strange Situation procedure which led to the classification of infants and toddlers as securely or insecurely attached to their caregivers (Ainsworth, Bell, & Stayton, 1972; Ainsworth, Blehar, Waters, & Wall, 1978). Ainsworth also reported on what is called "secure base behavior" where infants/toddlers who are exploring the environment may pause to look back to see if their caregiver is still watching them, balancing their need for exploration with the need for protection and reassurance. If the infant/toddler feels afraid, or needs reassurance or comfort, the infant/toddler may also move towards the caregiver displaying "attachment behaviors" such as crying and seeking contact to refuel themselves with support and comfort from their caregiver. As a connection is made and reassurance provided through eye contact, voice or physical proximity, the infant/toddler is then able to return to play. A caregiver's ongoing reassurance encourages the child's exploratory self-confidence and supports the early development of emotion regulation by helping manage the child's level of arousal and stress.

Currently, this is referred to as the "emotion regulation function of an attachment relationship" (Thompson, 2001, p. 96), where caregivers intervene to protect and offer reassurance to infants/toddlers, thus keeping their developing brain protected from too high of a stress response and their physiology and behavioral response systems calm. Kostelnick, Whiren, Soderman, and Gregory (2006) observed that human stress coping

responses are learned early in life. While changeable, these responses create a pattern or trajectory that remains in place unless actively changed by new relationships offering different patterns of interaction and relationship.

As noted earlier, secure relationships promote exploratory self-confidence as the infant/toddler learns a sense of trust in the caregiver's responsiveness (Weinfield et al., 1999). As infants grow within the comfort and protection of a secure relationship with a sensitive and consistent caregiver they become secure in their ability to influence their world, and interact with others in the environment. Young children who develop secure attachments to their caregivers are more independent and regulate negative emotions easier than their age mates with insecure attachments (National Research Council & Institute of Medicine, 2000; Rothbaum, Weiz, Pott, Miyake, & Morelli, 2000). Children who are securely attached are also more likely to have teachers/caregivers who offer sensitive, responsive, and predictable care on a consistent basis. This level of care fosters reassurance in children that they will be provided for physically and emotionally, again nurturing the early development of emotion regulation (Berk, 2002; DeWolf & van IJzendoorn, 1997; Weinfield et al., 1999).

Infants classified as insecurely attached may have caregivers who lack sensitivity and consistency, and/or are unresponsive to the infants/toddlers bids for attention and signals for help or protection (Ainsworth et al., 1978; Isabella, 1993; Weinfield et al., 1999). These infants may also have had a multitude of caregivers and therefore have not been able to establish a nurturing pattern of interaction or the opportunity to "feel felt" or in sync with the caregiver (Siegel, 2001). Therefore, these infants are not as likely to

develop the sense of confidence and trust that those who are securely attached to their caregivers have acquired. Weinfield et al. (1999) reported that children who are insecurely attached to their caregivers appear to be anxious over the availability of their caregivers to respond when needed with attention, assistance, or protection. Additionally, the stress coping systems of children with insecure attachments appear to become activated more quickly and stay activated longer when a potentially threatening situation arises (Gunnar et al., 1996). These children stay stressed longer than their peers with secure attachments. According to Gunnar and Cheatham (2003), chronically activated stress systems releasing cortisol, a stress hormone governing the fight or flight response, can damage neural tissue and cause problems with self-regulation. This provides evidence for the importance of parents/teachers/caregivers using warm, responsive, predictable care that builds an emotionally safe environment for children, and lays the foundation for development of healthy emotion regulation.

Infants and toddlers come to expect what has occurred previously, meaning they develop expectations and beliefs about how they are to be treated from the day to day interactions with primary teachers/caregivers (Weinfield et al., 1999; Bowlby, 1969). These beliefs and expectations, according to Bowlby, are internalized in what is called the “internal working model” of the self, a model of how to relate to others and how others are to relate to us. Bowlby’s theory reveals the very unique and individual patterning of young children for relationships by parents and teachers/caregivers who interact with infants/toddlers in ways particular to their cultural beliefs, values, traditions,

customs and courtesies including assumptions about how the world works and how they are expected to relate to one another.

Culture

Culture, as noted by the National Research Council & Institute of Medicine, (2000) has a deep and absolute impact on every aspect of development including attachment relationships. While it is known that the secure attachment classification is the one most often found in cultures researched so far (van Ijzendoorn & Kroonenberg, 1988; van Ijzendoorn & Sagi, 1999), studies have shown that patterns of attachment may be unique to individual cultures. For example, van Ijzendoorn and Kroonenberg (1988) reported that infants of German descent demonstrate a higher incidence of avoidant attachment than infants from America while many infants from Japan provide evidence of resistant attachments when assessed with Ainsworth et al.'s Strange Situation procedure (1978). However, Takashi (1990) noted that infants from Japan are **not** often left with caregivers other than their mother, and so perhaps the Strange Situation caused them more stress and alarm than American infants who may have a few caregivers. Likewise, infants living on an Israeli Kibbutzim may score very differently than their American counterparts. These infants may be taught to be wary of strangers and therefore perform very differently on The Strange Situation procedure. Lamb, Bornstein, and Teti (2002) state that parents of infants/toddlers in other countries could be considered to be less sensitive to their babies than are Americans, or this "ethnocentric interpretation seems incorrect" (p. 391). Lamb et al., (2002) further state that even though the researchers in each country performed The Strange Situation Procedure the same way

each time, the “meaning” of strangers, separation, and reunion for infants in each country seems very different. Current research reveals that attachment classifications with the Strange Situation may need to expand and evolve. As new information is presented from cultures on how and in what ways children are patterned for relationships the field may develop more accurate instruments to assess attachment across cultures.

Attachments with Teachers/Caregivers

Regardless of culture, infants and toddlers attach to their teachers and caregivers as well as their parents, grandparents, and others (Berk, 2002; Howes, Rodning, Galluzzo, & Myers, 1990). They also attach to their caregivers regardless of the quality of care (Carlson et al., 2003). Bredekamp and Copple (1997) reported that it is easier for children to focus on learning when they feel physically and psychologically secure. Berk (2002) noted the positive benefits for young children who form warm attachment relationships with their teachers/caregivers, especially if the child has an insecure relationship with one or both parents at home. Furthermore, Egeland and Hiester (1995) reported that infants with insecure attachments to parents who form sensitive attachment relationships with their teachers/caregivers demonstrate better self-esteem and social skills as preschoolers than insecurely attached peers who did not attend child care. This provides support for the positive outcomes for children with secure attachment relationships to child care providers and indicates the important role teachers play in the healthy social/emotional development of young children.

Teachers/caregivers are often seen as secondary attachment figures for many children and yet for some they may act as the primary attachment relationship which

again may have a tremendous impact on the physical and emotional health of the child. The proximal processes of Bronfenbrenner (1979) and Bronfenbrenner and Morris (1998) are at work through interactions between caregiver and child that occur fairly regularly over time. They are pattern forming, and mold and shape the young child through time. Repetitive interactions and day-to-day nurturing and responsive care facilitate teachers' /caregivers' and young children's meaningful relationships. These interactions influence not only attachment but the development of emotion regulation as well.

Mill and Romano-White (1999) studied 78 female teachers' /caregivers' expressions of anger and affection with preschool children. Through observation, multiple questionnaires, teacher self-report, and center director data, results showed that child care center director support and relationship was related to teachers who demonstrated more affection with the children. Higher quality materials and equipment to work with also made a positive difference for teachers. Teachers who were lowest in affection and highest in anger were shown to be teachers who believed they were in a less encouraging or supportive environment with less director support. They also were shown to have less training than the more affectionate teachers and had higher job concerns (low wages, more children on subsidy, etc.). This study reveals the need for high quality work environments with supportive supervision that produces teachers who demonstrate higher incidences of affectionate behaviors and quality relationships with children.

Additional research on teacher-child attachments reveals several factors of interest. In a meta-analysis of 40 research studies on teacher-child attachment, Ahnert, Pinquart, and Lamb (2006) reported that as a group, children are more frequently

securely attached to their parents than their caregivers. Parent's socioeconomic status, gender, age, small group size and staff-child ratio were significant factors correlated with secure attachments to teachers/caregivers. Children, who were younger, female, had been coming to child care for longer, were in small group size, smaller staff-child ratio and had higher family SES were more often securely attached. One unexpected finding from this study was that a teacher's group sensitivity versus dyadic sensitivity was more predictive of secure attachment status. The authors noted that teacher/caregiver opportunities to interact with individuals in child care may be less frequent due to the size of the group. Also, teachers' needs to monitor large groups of children may suggest more group interaction occurs than individual. Also, when teachers/caregivers provide responsive and consistent care to the large group, they are demonstrating that all children are treated with respect and sensitivity, which may have greater meaning for children than individual responsiveness due to the overall sense of safety and security it engenders.

Since attachment relationships develop through repetitive day-to-day interactions and caregiving routines, key characteristics such as sensitivity, consistency, predictability and the use of responsive teaching/caregiving practices are of primary importance (Bredekamp & Copple, 1997). Through early nurturing relationships that support the development of trust (Erikson, 1950) and the above named characteristics of high quality care, teachers/caregivers provide growth-promoting outcomes for young children and the secure base needed for toddlers learning emotion regulation. A short discussion of characteristics of high quality teachers/caregivers follows.

Characteristics of High Quality Teachers/Caregivers

Responsive

Research in the field of early childhood indicates the positive influences on young children's development of responsive teaching/caregiving practices (Bredenkamp & Copple, 1997; Sroufe, 1996; Weinfield et al., 1999). According to Richter (2004), the concept of responsiveness includes such qualities as responding promptly, appropriately, and sensitively to the child, being emotionally available to the child, and providing care predictably, all of which act to support the growing bond between the child and caregiver. As teachers/caregivers are both physically and emotionally present with children it strengthens the connection and relationship between them. Weinfield et al. (1999) noted that infants with responsive caregivers are confident in knowing that needs will be addressed, and are therefore more confident in their interactions with others. Findings from a large study of over a thousand families, conducted by The National Institute of Child Development (2001) demonstrated that responsive, sensitive caregiving, in addition to early language support, is related to cognitive and language development in children. Responsive caregiving has also been reported to be related to a child's development of self-worth (Stern, 1985).

Warm and Sensitive

Overlapping with responsive caregiving is the important characteristic of warmth and sensitivity to the child's needs (Richter, 2004). Sensitivity requires putting oneself in the place of the child and being able to read cues and signals of what is happening and what is needed (Meins, Fernyhough, Fraley, & Tuckey, 2001). When early childhood

professionals provide warm, sensitive care, an ongoing emotional connection with the child is maintained through an attitude of receptiveness to the child's bids for attention and responsiveness to the child's needs. Warm, sensitive caregiving not only means reading cues and signals, but responding to them in a timely fashion. Love (1993) used the Caregiver Interaction Scale (Arnett, 1989) to assess the quality of teacher/caregiver interactions with young preschool children. Results indicated that children exhibited less stress behaviors (fighting, wandering, crying) when teachers/caregivers were sensitive and encouraging during interactions and exhibited more stress behaviors when teachers were harsh or disapproving.

Consistent and Reliable

A caregiver's consistency and reliability in meeting needs is identified as important to the growing child's development of patterned ways of interacting and relating. Bredekamp and Copple (1997) assert that consistency of response by teachers/caregivers is an essential ingredient of early relationships and supports the development of trust and a sense of safety and security in young children. When children are able to predict what is coming next and know their bids for attention or reassurance will be met consistently they are apt to feel secure. Infants/toddlers develop a deep sense of security through day to day interactions with responsive and consistent teachers/caregivers. Providing the child with a sense of physical and emotional security through consistency and reliability of care again supports the early relationship and thus the development of emotion regulation (Thompson, 2001).

Nonverbal Communication

Emotional communication is fundamental to attachment, and nonverbal communication is a key way of conveying emotional information (Siegel, 2001). Nonverbal communication is also a hallmark of toddler behavior, and is therefore meaningful to this research study. Nonverbal communication is comprised of gestures, signs, and behaviors which are used instead of words, or in combination with words, from infancy to adulthood connecting children to other children, as well as to adults. Emotional content and meaning is often conveyed more truthfully with nonverbal communication noted Kostelnick et al., (2006). Siegel (2001) agrees, noting that reciprocal, nonverbal cues and signals can unify two minds on a basic emotional level.

Siegel (2001) noted the aligning of the infant/toddler's brain with the teacher/caregiver's brain during interactions, matching of states, and sending of information from one brain to another, signifying nonverbal communication. Siegel asserted that nonverbal communication (happening in the right brain) facilitates the alignment of infants/toddlers and caregivers states. According to Siegel (2001), the infant/toddler then uses the caregiver's more experienced emotional states and processes to help with the regulation of their own less experienced states and expression of emotions. Affective synchrony (emotional attunement between caregiver and child) and social referencing (the child checking for the caregiver's emotional response to situations) are two ways that nonverbal communication is used to align states of mind between the caregiver and infant/toddler, thus resulting in emotional communication (Siegel, 2001).

Most toddlers engage in nonverbal communication such as eye contact, pointing, nodding, touch, proximity, looking, and listening, along with some words when they are 18-24 months of age. Some toddlers are more advanced, using many words and even some phrases and a few sentences but many are still combining the use of non-verbal, prelinguistic communication with some speech to make a point such as asking for what they want (pointing to a cup for a drink) or when trying to assert themselves over a toy or desire to sit in the lap of a caregiver. Even the pupil of the eye when enlarged is considered nonverbal communication that evokes caregiver behavior (Schore, 2003).

Teachers/caregivers of young children also use plenty of non-verbal communication in their efforts to communicate effectively with toddlers such as holding and hugging, eye contact, proximity, joint attention, smiling, frowning, gestures; tone of voice and intensity of response etc. Additionally, differences in cultural display of gestures and non-verbal behaviors exists, examples are: Asian countries typically use far fewer gestures than European Americans and children who are Chinese may move their arms and bodies less when speaking, while Latino children are more expressive with use of hands and arms than European Americans (Kostelnick et al., 2006).

Touch

The use of touch is a critical component of nonverbal behaviors of toddlers and their teachers and one that carries meaning and builds relationships. The affective states and expressions of teachers/caregivers have a strong influence on how they interact with children (Lally, Mangione, & Young-Holt, 1991). Warmth is a characteristic that can be conveyed more through non-verbal means such as the use of the voice, touch, and facial

expressions. Likewise, teachers who smile and enjoy engaging with toddlers support a child's self-esteem, identity, and sense of being valued and cared about, all which build relationships and support the development of emotion regulation. Teachers/caregivers of young children often use touch to communicate concern and affection for them. Touch, according to Field (2001) implies interaction with another, providing a sense of connection, while lack of touch has been shown to result in growth retardation in animals and in human infants as well.

Infants and young children from Romanian orphanages who were left in cribs for extended periods of time and who lacked touch and a consistent, responsive caregiver demonstrated developmental delays as a consequence of this type of care (Rutter, 1998). This information provides support for the importance of touch, relationship, and the need of young children to experience feelings of connectedness and attachment with caregivers. Siegel (2001) would call this the need of children to "feel felt" or attuned to by the mind and emotions of their caregiver.

Through touch, infants may feel the warmth, sensitivity, and comfort of their teachers/caregivers which invites further communication (Koester, Brooks, & Traci, 2000). Touch may also be used to control, such as when a teacher intervenes when a child is about to break a rule or hurt someone (Kostelnick et al., 2006). Touch is also known to be a primary form of communication for young deaf children (Koester, Papousek, & Smith-Gray, 2000), as well as being used in certain cultures (e.g. Latino) where there may be more reliance on nonverbal than verbal communication during interactions

(Hecht, Andersen, & Rabineau, 1989). As a form of nonverbal communication, touch is a primary way teachers and toddlers interact and relate to each other.

Attachment remains a central theory of early social emotional development of young children while secure attachments are known to provide the supportive framework for the early development of emotion regulation. It is reported that children who are securely attached to their caregivers appear to have higher quality, growth promoting outcomes, that provide a foundation for healthy development including development of emotion regulation, while those with insecure attachments seem to be at-risk for problematic interactions and relationships and have more challenges regulating emotions and behaviors (Bowlby, 1969, National Research Council & Institute of Medicine, 2000; Weinfield et al., 1999). Teachers/caregivers using warm, responsive, predictable care support the attachment needs of infants and toddlers and act as a buffer when stressful situations occur (Gunnar et al., 1996; Gunnar & Cheatham, 2003). Additionally, through secure base behavior with responsive caregivers, infants/toddlers gain confidence in their interactions with their environment both social and physical (Carlson et al., 2003). It is through the day-to-day nurturing and sensitive care that toddlers develop trust and come to feel a sense of emotional safety and security that are primary to healthy social emotional development and emotion regulation. Furthermore, touch and other forms of nonverbal communication are often used by teachers/caregivers of young children (Field, 2001) to convey warmth and comfort and are used in cultures where communication is often expressed nonverbally (Hecht et al., 1989).

Temperament

The National Research Council & Institute of Medicine (2000) noted that individual differences in the ability to regulate emotions and behaviors is based in both biology and environment. An important biological aspect of individual differences in the ability to regulate emotions is temperament. Thomas and Chess's (1977) longitudinal study identified the unique individual differences in temperament in young children. These researchers theorized that the type of temperament influenced the occurrence of positive, growth promoting interactions or on the other end of the spectrum, influenced the development of problematic interactions and behaviors that were difficult to resolve. Thomas and Chess (1977) classified three types of temperament: children who were easy, difficult, and slow to warm up.

Thomas and Chess (1977) noted that different children react differently to similar situations, indicating unique dimensions of temperament, while Calkins and Fox (1994) explained this as infants developing unique patterns of approach or withdrawal to new situations. Some infants, for example, are fearful when faced with new experiences, while others are excited and eager with the same experiences. These unique, individual differences in responsiveness to the environment influence a young child's ability to regulate emotions and behaviors. Thus, temperament and emotion regulation are closely related.

The concept of the goodness of fit between a young child and adult promotes positive outcomes for children (Chess & Thomas, 1991). When child and adult temperamental characteristics are a good match there will be favorable outcomes for

children. An example of a good match may be a quiet baby and a soft spoken parent/teacher who seem to interact in mutually satisfying ways. An example of a poor fit may be a parent or teacher who is very busy, active, and at times over stimulating with a child who prefers a softer and quieter environment and interaction. Again, each partner brings to the relationship their own temperamental characteristics that support growth promoting or growth inhibiting interactions and relationship and development of emotion regulation.

Berk (2002) reported that the word temperament implies a genetic foundation as the basis for these unique, individual differences. The definition of temperament has evolved from a behavioral to a biological and developmental style that reflects the move towards innate, biological aspects of the construct. Currently, Putnam, Sanson, and Rothbart (2002) define temperament as “individual differences in emotional, motor, and attentional reactivity to stimulation and in patterns of behavioral and attentional self-regulation” (p. 255) while Calkins (personal communication, February 4, 2003) defines it as “biologically based individual differences in the experience and expression of emotion.” Putnam et al.’s (2002) definition is a broader one encompassing both emotional reactivity to the environment and patterns of behavior and self-regulation where Calkins’ (2003) definition sounds like a definition of emotion regulation. It appears that temperament and emotion regulation are intricately connected.

There appears to be a direct link between temperament, emotion, and emotion regulation, with temperament reflecting the more innate, biological aspect/tendencies and emotion regulation reflecting the environment interacting with biology. Rothbart (1989)

also noted the interaction between the infant and environment, nature and nurture, when describing infant temperament. Therefore, teachers/caregivers along with parents actively influence the child's temperament through daily interactions and caregiving routines.

Jerome Kagan (2005) and his colleagues (Rimm-Kaufman & Kagan, 2005; Schwartz, Wright, Shin, Kagan, & Rauch, 2003) have assessed over 500 children's temperaments, in particular, exploring the differences in temperament, and examining the characteristics of children who are inhibited and uninhibited. A longitudinal follow-up study by Schwartz et al. (2003) labeled children as inhibited or uninhibited at 2 years of age, and then assessed them as adults (average age 21 years) based on their responses to novel and familiar faces. Both sets of adults had **no** difference in their responses to familiar faces, yet those labeled as highly reactive (inhibited) at 2 years of age to novel experiences demonstrated greater responses and activation in the amygdala than those who were labeled low reactive (uninhibited) at age 2. The amygdala is the area of the brain where fear is activated and a person is prepared to respond to threat. Individuals who are highly reactive to novelty appear to have a hypersensitive amygdala (Kagan, 2005) and an inherited physiology, biasing them towards this type of response. Documented physiological changes (heart rate, pupillary dilation) and a higher level of cortisol (a stress hormone) in those labeled highly reactive provide evidence of the differences in the biological origins of temperament as well as some stability in temperament over time. These findings lead researchers to understand more of the innate and heritable aspects of temperament.

As mentioned above, temperament as the unique, individual differences in responsiveness to the environment influences a young child's ability to regulate emotions and behaviors. Children with difficult temperaments may have more of a challenge learning to regulate their emotions and behaviors than children with easy going temperaments noted Thompson (2001). Likewise, teachers/caregivers vary in their abilities to help children manage their distress and crying with self-regulatory strategies. Teachers/caregivers also may have difficulty interacting positively and responsively to a child with a difficult temperament whom they may feel irritation towards (National Research Council & Institute of Medicine, 2000). Therefore, the social environment inclusive of teacher/caregiver practices may either help or hinder the development of the child's most positive temperamental characteristics and thus emotion regulation.

Culture

Research demonstrates there are basic emotional expressions that are universal, occurring in all cultures, such as joy, sadness, anger, and disgust (Kitayama & Markus, 1994; National Research Council & Institute of Medicine, 2000). At the same time however, display of emotions and regulation of emotions are shaped and molded by the values and beliefs of each family and culture and patterned through the unique interactions with significant others (Gloeckler & Niemeyer, 2005). It was noted earlier that attachment relationships are very unique in different cultures based on caregiver expectations for child behavior and interaction. Likewise, temperament as the individual experience and expression of emotions is powerfully linked to parents and caregivers as

they socialize children to express certain emotions and restrain others that are deemed socially unacceptable.

It is reported that there is some variation within cultures in the degree to which families follow their traditional cultural child rearing patterns (Santos & Reese, 1999). However, emotions are socialized by parents/caregivers in unique and individual ways, particular to each individual race, culture and family (Lynch & Hanson, 1998; Reid, 2005). Examples are: a parent from India may teach her child not to speak until spoken to, to look down when adults speak to him/her and to not outwardly show the emotion of anger thereby resulting in a very quiet child at child care; a Hispanic parent may use touch and non-verbal gestures to communicate and express feelings to her child, qualities which may or may not be demonstrated by the European American family. There is a clear and profound influence of culture on all aspects of development and in particular the socialization of emotions (National Research Council & Institute of Medicine, 2000). This information provides support for studying the early development of emotion regulation within individual cultures to examine patterns of behavior and the meanings behind them.

The Role of Brain Development

Information on brain development is actively expanding our understanding of the capabilities of infants/toddlers and how underlying neurological processes influence development including the expression and regulation of emotions (Schore, 1994, 2003; Perry, 2002). Current research indicates the development of the brain is influenced by the infant's/toddler's environment and shaped by experience (Schore, 1994, 2001; Siegel,

2001). Through early experiences the structure of the brain can become strong and well-built, or it can become harmed (Thompson, 2006). Neurons are activated by experience and therefore have the capacity, moment by moment, to influence the continual shaping and reshaping of the brain (Siegel, 2001). Research is also now exploring the idea that human brains remain flexible throughout life and exhibit great potential for change over time (Benes, 1998; Bruer, 2004). Brain research and discovery has changed how many persons view infant development, such as the ability of an infant/toddler to regulate early emotions and behaviors.

As mentioned earlier when infants/toddlers are distressed or upset the stress hormone cortisol is released into their system. According to Gunnar and Cheatham (2003), chronic, repeated release of cortisol damages neural tissue and creates problems with memory and self-regulation. It has been demonstrated that children in child care have higher levels of cortisol in their systems than children who do not go to child care (Tout, de Haan, Campbell, & Gunnar, 1998). The reasons for the higher cortisol level are still unclear and being investigated. However, here is seen the importance of having sensitive and responsive caregivers who offer protection for healthy brain development during times of high stress by providing a safe emotional environment for toddlers that prevents continual activation of their stress systems (Thompson, 2001).

Siegel (2001) discussed the aligning of infant/toddler and caregiver brains during interactions, matching of states and sending of emotional communication during social referencing and affective attunement thus providing the toddler a template for relationships. Again the child is using the caregivers more mature regulatory system to

assist with regulating his/her own. Over time with repeated interactions the infant/toddler begins to encode in memory how to relate to others and develops the neural templates for doing so that are in alignment with the social environment the child engages with on a daily basis.

Current models of brain development are demonstrating just how early social and emotional experiences are influencing the maturation of different brain structures, especially the right hemisphere (Schore, 1994, 2001, 2002). The right brain is called the emotional brain and is considered the dominant brain for the first three years of life (Chiron, Jambaque, Nabbout, Lounes, Syrota, & Dulac, 1997). It is the hemisphere that is growing fastest; it is more active, and dominant for nonverbal information, and for processing emotional information (Thatcher, 1997). The right brain also is the hemisphere that functions to regulate negative emotions while the left hemisphere regulates positive emotions (Calkins & Fox, 2002). Young children who develop secure attachments to their caregivers are better able to regulate negative emotions than their age mates with insecure attachments (National Research Council & Institute of Medicine, 2000; Rothbaum et al., 2000) demonstrating the powerful impact of early nurturing relationships on children's growing capacity to regulate emotions.

Therefore, since the right brain dominates for the first 3 years of life, grows the fastest, and is the hemisphere responsible for regulating negative emotions, it plays a critical role in early childhood development (Gallagher, 2005). This information provides support for the importance of having high quality teachers and caregivers working with infants and toddlers in their earliest years (Landy, 2002) so that early patterning for

relationships occur in growth promoting ways. Ross Thompson as referenced by Friedman (2006) says we should call our child care centers “brain development centers” as they are influencing early development in a profound way. Developmental trajectories are initiated early in life and while changeable, are more difficult to redirect with increasing time (National Research Council & Institute of Medicine, 2000, Weinfield et al., 1999), increasing the need for our best teachers to be with our youngest children.

Emotions and Emotion Regulation

Witherington et al. (2001) describe emotions as supportive of an individual’s adaptation to his/her environment, as they help infants/toddlers and all humans with addressing challenges they encounter. When a toddler’s goal is satisfied, a particular emotional response may arise and be expressed, and when a goal is interrupted or blocked, a different emotion may arise and be expressed. Thus young children interact with the physical and emotional environment resulting in a variety of different emotions that arise and are expressed. There are emotional expressions that are universal; occurring in all cultures, such as joy, sadness, anger and disgust indicating there is an innate component to emotions and emotional expression (Kitayama & Markus, 1994, National Research Council & Institute of Medicine, 2000). However, emotional display rules particular to individual cultures dictate which emotions are allowed to be displayed and which ones are not and when, revealing individual cultural differences.

Berk (2002) also noted that by 8 to 10 months infants will use “social referencing,” or looking at their caregiver’s face for their emotional response to a situation. Infants will match a parents/caregivers emotional state taking their cues from

the adult on how to interpret the current situation. Through continued interaction with caregivers, infants develop patterns of emotional expression that may be partly based on their own genetic makeup and temperament as well as partly on the physical and emotional environment they live in day to day (Calkins & Fox, 2002).

With the beginning of locomotion, the infant's view of the world enlarges, bringing many new opportunities and potential problems as well. As infants learn to crawl and then walk they gain an increased understanding of the different facial expressions of their teachers/caregivers, some expressions meaning "yes go ahead" and others "stop." Through secure base behavior infants/toddlers begin to discover and learn about their environment, returning to their caregiver as needed for reassurance and support. It is a time of new exploration and expansion of the child's world and therefore an expansion in the complexity and expression of emotions. Emotions help the infant/toddler regulate his/her interactions with the environment through increases and decreases in level of arousal (Witherington et al., 2001).

Through early nurturing relationships, teachers/caregivers of young children act to structure and scaffold the social environment to support the increase, decrease and management of the child's level of arousal supporting the toddler's self-regulatory efforts. Fox and Calkins (2003) reported that teachers/ caregivers of young children play a critical role in helping children adjust, modify and temper their level of arousal in order to have control of their emotions. This allows the child to keep their level of arousal in a manageable or positive range.

Two ways that high-quality caregivers support the early development of emotion regulation in young children are: by actively intervening when infants/toddlers feel threatened in any way, in need of help or assistance; and by providing an ongoing nurturing relationship where bids for attention are met and reassurance is gained through the basic safety and comfort the relationship with the caregiver provides (National Research Council & Institute of Medicine, 2000).

Early in a child's life emotional regulation involves learning to comfort and calm oneself after an upsetting event or potentially upsetting event. This is learned through the ongoing interaction and nurturance the child receives from adults, modeling for him/her strategies for calming down. Young children may look to their parents, teachers or caregivers for help or assistance to manage difficult situations and by the time they are 18 months can be seen turning away from upsetting events and/or changing whatever they are playing with if it is upsetting them (Buss & Goldsmith, 1998; Calkins & Johnson, 1998). These are emotional regulation strategies the infant is employing in an effort to manage stress, and remain in a calm state all while working towards achieving his/her goals. Thompson (1994) and Sroufe (1996) also described how teachers/caregivers act as external regulators of young children's behaviors until such time as young children learn to regulate their own emotions and behaviors, thus providing the context for learning these skills.

Through day to day, repetitive interactions with responsive caregivers the infant/toddler develops patterns of socially appropriate emotional expression and emotional regulation. The infant/toddler learns strategies to inhibit or suppress certain

emotions and behaviors that are not appropriate and to make other choices. Increased effortful control and focused attention go hand in hand in the development of emotional regulation skills. Thus the young child learns behaviors to manage her/his own emotional expression and becomes increasingly confident and comfortable with her/his self in a variety of different social settings and environments.

Current Research on Emotion Regulation

There are three types of research studies being conducted that aim to infer that emotion regulation has occurred: (a) studies of mother-child interaction such as using the still-face paradigm, (b) studies of temperament, and (c) studies of emotion regulation itself. The following studies provide examples of these types of research.

Early studies of mother-child interaction demonstrated reciprocal and mutual regulation between mothers and their infants (Stern, 1985). More recently, studies using the still-face paradigm where the mother produces a still face with no affect, demonstrate that infants initiate a response to the still face of the mother, using such strategies as vocalizing, smiling, and then indicating distress when there is no response (Weinberg & Tronick, 1996). These are purported attempts by the infant to regulate the interaction and get the mother engaged again. When the mother continues to have a still face some infants will resort to soothing themselves in an effort to maintain a certain state of arousal or regulation. These experiments give evidence for infants having basic emotion regulation strategies during interaction with their mother.

Research on temperament has used experiments where children were presented a barrier to a toy they wanted or had their arms held by their mothers in an effort to illicit

anger. These standard experiments have been investigated in a lab setting. One study by Buss and Goldsmith (1998) with 6, 12, and 18-month-olds indicated children demonstrated strategies indicative of trying to regulate emotions when their arms were restrained or a toy taken away. Results also indicated that as strategies were used by the children, there was a lessening of the emotion of anger. However, a significant finding was that there was no reduction in the emotion of fear indicating that infants may regulate emotions in a limited way. Another study by Stifter and Braungart (1995) was conducted with 5 and 10-month-old infants using arm restraint and toy removal to induce anger. Results indicate that infants were likely to use strategies such as soothing themselves during times of decreasing negativity, more so than times of increasing negativity to comfort themselves and manage their level of arousal.

Currently, there are research studies on emotion regulation in laboratory settings with fear and anger inducing events eliciting emotion regulation strategies from infants and young children (Calkins & Dedmon, 2000; Diener & Mangelsdorf, 1999; Grolnick et al., 1996). These studies present an important way to gain information regarding the infant/toddler's physiological responses (heart rate, blood pressure, and breathing rate) to emotions and emotion regulation strategies used to respond to anger and fear inducing events. These studies provide evidence of the underlying biological substrates of emotion regulation. While these current research studies provide evidence of the biological and internal aspects of the construct of emotion regulation, they do not address the social and environmental aspects which are needed to fully understand the construct.

The study of emotion regulation by Grolnick et al. (1996) with 2-year-olds examined children's emotion regulation strategies during difficult times such as separating from a parent and a delay in being given an object they wanted. Results indicate that toddlers engaged in purported regulatory efforts such as self-distraction to maintain themselves during these events. Another study by Calkins et al. (2002) demonstrated gender differences in the ability to regulate emotions physiologically. Through parent report and lab observation, 162 six-month-old children were labeled as easily or less easily frustrated. Calkins et al.'s (2002) research with anger-inducing events found that while both girls and boys are likely to be labeled "easily frustrated" in equal numbers, boys were more likely to have a difficult time regulating themselves physiologically.

Criticism of studies of emotion regulation to date includes that many researchers have not defined for their study the terms emotion and emotion regulation nor have their methods differentiated between the two terms (Cole et al., 2004). In other words, the field is actively working on defining emotions and emotion regulation and some researchers assume that all people know what is meant by an emotion and emotion regulation and so do not define these terms for their study. Additionally, Campos et al. (2004) noted the great number of quantitative studies being done in laboratory settings and the need for qualitative, interpretive studies that would take place in natural environments and describe the patterns of emotional expression and regulation and the meaning of behaviors. This current study aims to begin to address the need for qualitative studies taking place in natural environments where teacher patterns of interaction with children

can be observed and practices appearing to support the early development of emotion regulation in toddlers noted.

CHAPTER III

METHODS

Design

This exploratory and descriptive research study employed a qualitative case study design. Creswell (2005) notes the importance of qualitative research designs when a research problem requires a researcher to:

- learn about the views of individuals
- assess a process over time
- generate theories based on participant perspectives
- obtain detailed information about a few people or sites. (p. 65)

Case studies describe in detail what is happening and why (Shavelson & Towne, 2002). Fitzpatrick, Sanders, and Worthen (2004) suggested that qualitative case study designs are used when the researcher wants to understand something in depth. Maxwell (2005) reported that qualitative studies typically involve a small number of subjects while Lincoln and Guba (1985) asserted that an important goal of case study is to convey “thick descriptions” of what is occurring.

The goal with the present study was to provide in depth “thick descriptions” of each teacher’s/caregiver’s practices used with toddlers and therefore offer a greater understanding of practices that create relationships with toddlers and practices used when a child is distressed or upset. The goal is not to make generalizations to other populations

or settings, but to focus on describing the unique attributes or qualities of each case (Stake, 1995).

Fitzpatrick et al. (2004) suggest that case studies have three common features, a focus on one or a few cases, the goal of understanding an issue and the use of many sources of data collection. There is a focus on qualitative methods such as observations, interviews, and relevant documents. Campos et al. (2004), in an article on emotion regulation recommended interpretive, qualitative methods for examining the construct of emotion regulation, where teachers and young children's behaviors can be examined for patterns of behavior and the meaning behind them. Bronfenbrenner (1979) and Bronfenbrenner and Morris (1998) also asserted the need to study children in their natural settings which for many young children means at child care. Natural observation and interviews as qualitative methods facilitate the examination of teacher practices and behaviors. They provide the richness of detail that may be difficult to obtain with quantitative methods and allow for a more in depth look at what is occurring (Creswell, 2005).

Lead teacher observations, teacher and parent interviews, and an assessment of each child's temperament by both the teacher and parents formed the foundation of data collection for this study. Lead teacher and child care center demographic data sheets and lead teacher professional development history also enhanced and expanded the wealth of information supportive of case study design. The current study fits well with the description of the case study design and the goals of case study methods. Therefore, this study employed a case study design examining three cases—three teachers'/caregivers'

practices in toddler classrooms—to gain an in depth understanding of how they may be influencing the early development of emotion regulation in toddlers.

Procedures

The study of teacher/caregiver practices influencing the early development of emotion regulation in toddlers involved multiple data sources. Table 1 identifies the methods as they address the research foci.

Table 1

Methods

	Teacher Observation	Teacher Interviews	Parent Interviews	Temperament Scales Teacher
1. Teacher practices used to create relationship with toddlers	X	X	X	X
2. Teacher practices used to calm down a child who was upset, distressed, or crying	X	X	X	X

In order to identify the pattern of practices and strategies used to establish relationships with the children and ways to calm them when upset, each of the 3 lead teachers was observed mornings over a period of one week, as she worked in the toddler classroom with the children. The lead teachers and two parents from each classroom also participated in an audio-taped interview with the lead researcher to identify and clarify practices the lead teacher used with the children. Finally, both the lead teachers and the parents of the toddlers filled out the Colorado Childhood Temperament Inventory (Rowe & Plomin, 1977) on the children (see Appendix A); the teacher on each child, and the

parents on their own child. A detailed protocol was used for the observations and interviews to ensure reliable and consistent data collection. See Appendix B (Parent Interview Protocol) and Appendix C (Teacher Interview Protocol).

Subjects

The selection of the three Caucasian, toddler lead teachers and classrooms was based upon the permission and agreement of the child care center directors, lead teachers, and assistant teachers. A list of all three, four and five-star licensed child care centers from three counties in North Carolina was accessed from the Division of Child Development web site. The star rating licensing system in North Carolina is used as an indicator of overall global quality of child care centers with ratings ranging from one to five, with a five star being the highest rating a center can receive. Child care classrooms wanting to be rated for licensing are assessed with either the Infant/Toddler Environment Rating Scale-Revised (ITERS) (Harms, Cryer, & Clifford, 2003) or the Early Childhood Environment Rating Scale-Revised (ECERS) (Harms, Clifford, & Cryer, 1998). Inviting participation from only three, four, and five-star licensed centers ensured a basic level of quality across the three centers participating in the study. Approximately 150 phone calls were made to child care centers with three, four, and five-star licenses in three central counties in North Carolina until three centers that matched the required criteria were found and the directors and teachers gave permission.

The criteria needed for child care centers and teachers to participate in the research study were (a) participating lead toddler teachers were Caucasian, (b) lead teachers had been employed in the toddler classroom for at least 3 months prior to the

beginning of the study, (c) the child care centers must have received a three, four, or five-star rating, (d) the children participating in the study were one to two years old, (e) the child care centers operated a full day and full week program, and (f) the cost of sending a child to child care for a week was similar among the three child care centers.

The child care center directors and toddler lead teachers who agreed to participate met with the researcher to further discuss the study and review required criteria. Assistant teachers were informed of the study by the director. The lead teachers and assistant teachers were asked to sign the Internal Review Board (IRB) consent for participation form, acknowledging their agreement to be involved in the study. The director, lead teacher, and assistant teachers were also given signed statements of confidentiality from the lead researcher and assistant researchers' number one, number two and transcriptionist, assuring them of the anonymity of the child care center, staff, teachers, children, and families.

As mentioned in Chapter II, emotions are socialized in unique ways within individual cultures and therefore need to be studied within culture. Therefore, this research study enlisted Caucasian teachers as participants. The primary subjects were three Caucasian lead teachers/caregivers working in toddler classrooms at three, four, and five-star licensed child care centers in central North Carolina. Two of the lead teachers had a high school degree and the third teacher had an Early Childhood Associates Degree. The amount of time spent working with toddlers varied from 6 months to 7 years for the teachers, and the number of children they served during the research study was 8

or 9 per classroom. The following table illustrates the demographic data of the 3 toddler lead teachers.

Table 2

Lead Teachers' Demographic Data

Demographic	Teacher 1 Rochelle	Teacher 2 Tori	Teacher 3 Frangela
Number of years teaching young children	7 years	7 years 5 months	6 years
Number of years teaching toddlers	1 year	7 years 5 months	6 months
Education level	High School	High School	Associates Degree in Early Childhood Ed.
Amount of time worked with assistant or co-teacher	2 weeks	7 years	6 months
Do you have another job besides child care?	No	No	No
Are you in school at this time?	No	No	No

While the primary focus of this research study was on the lead teacher, the assistant teachers were participants as well. The assistant teachers were enlisted for participation in the study by the center directors. Whenever an assistant teacher interacted with the lead teacher or together with the lead teacher and the children it was recorded, however, her behaviors and interactions with the children were considered supplementary to the main focus of the study on the lead teacher.

The children enrolled in the toddler classrooms of the lead teachers selected for the study were also participants. These were toddlers aged one to two years old. These children, with parent permission, were observed as they interacted with the lead teacher during the 5 days of data collection in their classroom. Additionally, both lead teachers and parents filled out temperament scales on the children (parents for only their child) to provide a general assessment of temperament and how it might be influencing the child's responses to the teachers' practice and the development of emotion regulation. Having temperament assessments on the children also adds to the richness of the information collected for the overall case. The following table presents the children's demographic data.

Table 3*Children's Demographic Data*

	Number of Children Enrolled in Classroom	Age	Culture	Children with Disabilities
Children in Classroom 1 Rochelle	9	18-24 months	8 Caucasian 1 Hispanic	0
Children in Classroom 2 Tori	9	14-23 months	4 Caucasian 4 African American 1 Other	0
Children in Classroom 3 Frangela	8	15 -24 months	5 Caucasian 1 African American 1 Asian 1 Indian	0

Parents of the children enrolled in the toddler classrooms were also participants in the study. Parents signed the IRB consent to participate form, giving permission for the children to be observed and for themselves to fill out a temperament scale on their child. Two parents from each classroom also agreed to participate in the study by engaging in a semi-structured interview with the lead researcher. Each parent was given a signed statement of confidentiality assuring anonymity for them and their child, from the lead researcher; assistant researcher's number one, number two and transcriptionist (see Appendix D).

Setting

Participating child care centers were located in the central part of North Carolina and included two centers with a four-star license and one with a five-star license. All centers operated a full day and full week program. All three child care centers were for profit, with one privately owned and the other two operating as part of national franchises. Parents' weekly cost of child care for toddlers ranged from \$130 to \$165 between centers. The child care centers served between 129 and 238 children and families and all were located in urban areas.

The toddler classrooms at each center served children one to two years old. Classrooms one and three were staffed by a lead teacher and assistant while classroom two had two co-teachers. The classrooms were all average to large size and each had a large playground available for outside play. The classrooms were mostly stocked with developmentally appropriate toys and materials and all had children's art work displayed on the walls. Observations covered all areas of the classroom and all activities the lead

teacher engaged in with the children. It also included any miscellaneous rooms or outdoor areas that the toddlers used when engaging in special activities or outdoor play, such as playgrounds or multipurpose rooms.

Data Collection

Sources of data collection for the study included teacher observations and interviews, parent interviews, assessment of the lead teacher with the Caregiver Interaction Scale, teacher/caregiver demographic data, child care center demographic data, temperament scales filled out by the teacher on each child and another one filled out by each parent on their child and the professional development, training history the lead teachers/caregivers have participated in during the past 3 years. Table 4 illustrates the sources of data as they relate to the research foci, namely teacher/caregiver practices used to create relationships with toddlers, and practices used to calm down a child who was upset or crying.

Teacher Observations

Since toddlers communicate non-verbally a majority of the time, the researcher in an effort to “catch” the nonverbal behaviors and communication of the lead teachers and children looked at a list of nonverbal behaviors and communication before entering the classroom each day. This list included items such as smiling, looking and listening, proximity, touch, teacher down on child’s level, nodding, pointing etc. These provided a reminder of non-verbal communication to the researcher and thus the greater possibility of observing it as it occurred and examining and describing it within the study.

Table 4*Sources of Data Collection*

Data Sources	Teacher Practices Used to Create Relationship With Toddlers	Teacher Practices Used to Calm Down a Child Who Was Upset, Distressed, or Crying
Persistent Observation	X	X
Teacher Interviews	X	X
Parent Interviews	X	X
Temperament Scales—Teacher	X	X
Temperament Scales—Parent	X	X
Demographic Data Sheet—Teacher	X	X
Demographic Data Sheet—Director	X	X
Professional Development History	X	X
Caregiver Interaction Scale	X	X

The three lead teachers were observed by the researcher over a period of 5 days during one week. The three observation hours each day were between the hours of 8 a.m. and 11:30 a.m., depending on when the children ate lunch and went to nap (5 days x 3

hours each day =15 hours total observation for each teacher). On the first day at each site the researcher observed but did not take notes, in order to get a sense of the classroom and routines of the teachers and children and for additional contextual cues. On days two, three, four and five, a running record was kept on a pad of paper recording specific details of what the lead teacher/caregiver was saying and doing, what her behaviors and practices were with the children, and the children's responses to their teacher/caregiver. The children wore stickers on their back with their first initial or first and last initial to provide an identifier for data collection and analysis. The assistant teacher was included in the observation any time she interacted with the lead teacher or interacted together with the lead teacher with the children.

Teacher and Parent Interviews

Each of the 3 lead teachers/caregivers and two parents from each of the classrooms also participated in a single, semi structured interview to gain additional information on the lead teachers' practices. Interviews lasted approximately 30 minutes and were audio taped and transcribed. Center directors, lead teachers, and the researcher recruited the parents for interviews. Teachers/caregivers and parents were interviewed either in the directors office, an empty classroom, or the staff meeting room at their respective child care center where privacy could be assured. Interviews were arranged with parents at a time of their choice and all occurred on Thursdays or Fridays of the observation week. Lead teachers were interviewed on the last day of data collection at their site (Friday) after all observations were completed for the week.

One goal of parental interviews was to gain parental perspective and information on teacher practices. Another goal was to provide for triangulation of data with the teacher interviews and observations. Analyzing whether the parents' perceptions of teacher practices were aligned with teacher-observed practices and those practices teachers say they use provided triangulation for the study. Questions such as "How does the teacher support the social emotional development of the children?," "How does the teacher calm down a child who is upset?," "How does the teacher settle differences between children and how does the teacher interact with you and your child during the morning drop off routine?" were aimed at acquiring information about practices used to create early relationships, and responses and strategies used when children were needing support to calm down when they were distressed, upset, or crying (see Appendix B).

Lead teachers were asked similar questions. One goal of the teacher interviews was to provide an opportunity for teachers to identify the practices they use in their work with toddlers. These were then compared with the actual practices they were observed using. Questions such as "Tell me about the practices you use to support the social emotional development of children," "Tell me about the practices you use to calm a child down when they are upset," "Tell me about how you interact with families and children during the morning drop off routine," or "Tell me about the practices you use when a child is transitioning into or out of your classroom" were meant to elicit information to respond to the stated research purpose and research focus areas of this study (see Appendix C).

The Colorado Childhood Temperament Inventory

An adapted version of the Colorado Childhood Temperament Inventory was chosen to assess children's overall temperament, style of interaction, and response to teacher practice and care giving (Rowe & Plomin, 1977) (see Appendix A). The instrument has reliability ratings ranging from .73 to .88 on the different subscales as reported by Rowe and Plomin. The total scale has 30 items that are broken down into six subscales, including sociability, emotionality, activity, attention span, soothability, and reaction to food. Children are scored from one to five; with a score of one indicating the statement is "not at all" like the child and a score of five meaning "a lot" like the child. The adapted version of the scale used for this study reduced the scale to 25 items by deleting the subscale on food sensitivity. This reduction made the scale shorter (25 items) and more focused on items related to emotion regulation.

On the last day (Friday) at each center, after all observations and interviews were completed for the week, a large manila envelope was given to the lead teacher with copies of the temperament scales inside. The lead teachers were given directions to fill out a temperament scale on each child and then return them to the large manila envelope. Children were identified by their first initial or first and last initial on the forms. Inside the large manila envelope there were also individual copies of the temperament scale inside privacy envelopes to be given to the parents to fill out on their own child. A short note instructed parents to fill out the temperament scale on their child, seal in the privacy envelope, and return to the large manila envelope. The researcher then returned approximately one week later to each site to retrieve the large manila envelope.

Center Director and Lead Teacher Demographic Data Sheets

Child care center director and lead teacher demographic data sheets were distributed at the first onsite meeting the researcher had with the director and lead teacher to discuss the study. The researcher also asked for a copy of the lead teacher's 3-year professional development history at that meeting. This allowed the directors and teachers time to gather the information and fill out the forms before the researcher returned to conduct the study. The demographic data sheets were collected by the researcher on the first day of data collection at centers one and two and on the third day of data collection for center number three.

The child care center director data sheet requested information such as number of children enrolled at this center, number of classrooms and teachers, star-rated license rating, hours of operation, and full day and part day programming. The lead teacher demographic data sheet asked for information regarding amount of experience working in child care, amount of experience working with toddlers, numbers of children in this classroom, number of teachers in this classroom, education level, the use of primary caregivers in this classroom, secondary employment besides working at the child care center, and amount of professional development on the topic of self-regulation skills. These demographic data sheets were used to provide contextual data to further enrich the study and provide a broader picture of the lead teacher, how she is situated in the child care center and toddler classroom, and her practice as well. It also provided critical information on the context provided for the children learning regulation of emotions and

behaviors. See Appendix E (Lead Toddler Teacher Demographic Data Sheet) and Appendix F (Child Care Center Director Demographic Data Sheet).

Professional Development History

Each lead teacher's professional development history for the past 3 years was obtained from the child care center director with permission from the lead teacher. It was gathered to increase the number of data sources for the study and to present a more in-depth picture of the kinds of training opportunities in which the teachers/caregivers are engaging. It also provided an understanding of the teachers'/caregivers' knowledge base, strengths, abilities, and understanding of emotion regulation.

The Caregiver Interaction Scale

The 3 lead teachers/caregivers were assessed using the Caregiver Interaction Scale (Arnett, 1989) as a measure of trustworthiness on the naturalistic observations (see Appendix G). The Caregiver Interaction Scale is a 26-item observation-based assessment of teacher interactions with young children. It is widely used in early childhood research today to provide an overall picture of the teachers'/caregivers' sensitivity and behavior while interacting with children. It is an instrument with reliability ratings ranging from .81 to .95 on the different subscales as reported in studies by Arnett (1989), Kontos, Howes, and Galinsky (1996), and Phillips, Burchinal, Howes, and Cryer (1997).

Assistant researcher number one conducted the CIS twice on Wednesday mornings at center number one and center number two during their week of data collection. The assistant researcher number two conducted the CIS twice at the third child care center on Wednesday morning during their week of data collection. The CIS is likert

type scale scored in rank order with a score of one indicating a practice or quality of that teacher/caregiver as “not at all true” to a score of four recorded for a teacher practice or quality being “very much true.” The 26 items were then collapsed into four subscales providing a score for that particular teacher. The four subscales are positive relationship/sensitivity (warmth, attentive, engaged), harshness (critical, threatens children, punitive), detachment (low levels of interaction, interest, supervision), and permissiveness (avoids disciplining children). The categories were then collapsed into one overall score for the particular teacher/caregiver. Higher scores indicated a more sensitive and responsive teacher/caregiver than lower scores.

The assistant researcher number one was trained to conduct the Caregiver Interaction Scale in May 2006 in a toddler classroom with the same age children as the current study. The lead researcher and the assistant researcher number one each studied the scale individually and then met to review each of the 26 items. The scale was examined for possible responses and discussion held on why a one, two, three, or four would be given for each item. The lead researcher and assistant researcher number one then went to a toddler classroom at a local child care center and conducted the scale independently on three different occasions with one to two rounds each time. After each round of observation, the lead researcher and assistant researcher number one went to a bench outside the classroom to score the scale individually. After each scoring, they reviewed the scores and discussed differences and similarities and reasons for giving each score. Final inter-observer reliability was calculated and found to be 100% on the

harshness scale, 100% on the detachment scale, 94% on the sensitivity subscale, and 72% on the permissive subscale, with an overall reliability score of 91%.

The assistant researcher number two was also trained on the Caregiver Interaction Scale in July of 2006 by the same process as assistant researcher number one. The scale was studied, a meeting was held for review of the 26 items, and then practice sessions at Carter Center in the toddler classroom on the campus of UNC Greensboro were conducted. The CIS was conducted independently and final inter-observer reliability computed to be 100% on the harshness subscale, 85% on the detachment subscale, 97% on the sensitivity subscale, and 100% on the permissive subscale, with an overall reliability of 95%.

The Research Team

The research team consisted of a lead researcher, assistant researchers' number one and number two, an auditor, and a transcriptionist. The lead researcher has worked in early childhood most of her adult life. She has three and a half years of experience working in an inclusive child care setting, as well as many years of consulting and training early childhood teachers/caregivers. She previously coordinated the Early Childhood Department at a community college in North Carolina. The lead researcher conducted the observations at each child care center and the interviews of teachers and parents. She provided the demographic data sheets to the child care center directors and lead teachers for completion and answered any questions regarding them.

The assistant researcher number one who assessed two of the three lead teachers with the Caregiver Interaction Scale (CIS) is an Assistant Professor in the Department of

Human Development and Family Studies at the University of North Carolina at Greensboro. Her interests are in child care quality, inclusive classrooms, and teacher-child interaction. The assistant researcher number two, who assessed the third teacher with the Caregiver Interaction Scale, has a master's degree from the Department of Human Development and Family Studies at the University of North Carolina at Greensboro specializing in early childhood education. The auditor has a master's degree from the University of North Carolina at Greensboro in Birth to Kindergarten Interdisciplinary Studies in Education and Development. She is currently a Pre-K teacher in the Guilford County Schools in Greensboro, North Carolina. The transcriptionist is a doctoral student in the Department of Specialized Education Services at the University of North Carolina at Greensboro.

Trustworthiness

When conducting qualitative research the concept of trustworthiness is used to address the credibility of the study (Creswell, 2005; Lincoln & Guba, 1985; Maxwell, 2005). Lincoln and Guba (1985) suggested there are a number of techniques used to demonstrate if findings are credible and therefore, worthy of our belief in them. Some of these techniques are prolonged engagement, persistent observation, triangulation, and member checking. Prolonged engagement and persistent observations require a researcher to spend a sufficient amount of time conducting the study to gain the trust of the participants, time to gather sufficient data for the study, and the ability of the researcher to identify characteristics that are most important and relevant to the purpose of the study. Triangulation involves the use of multiple sources and methods of data

collection to confirm findings or results of a study. Triangulation does not rely on one source but many to confirm and verify what has occurred. Member checking allows for the rechecking of original data by the person it was gathered from, providing evidence of credibility.

Using observation, interviews, and an assessment of child temperament as main sources of information provided a solid basis for triangulation of data. Additionally, observing each lead teacher for 3 hours a day for 5 days during the study provided adequate time to explore and describe the practices used with the children. The following sources of data collection were used in the current study to establish trustworthiness.

The Caregiver Interaction Scale (CIS)

The Caregiver Interaction Scale was conducted twice on Wednesday mornings at each site to provide a measure of trustworthiness on teacher observations. The CIS allows for a standardization of the observation, and therefore the opportunity to objectify and quantify what the researcher is seeing, possibly reducing researcher bias (Creswell, 2005), thus adding credibility to the study. The CIS was then used in support of the naturalistic observation data.

The second way of establishing trustworthiness on the naturalistic observations was by having the auditor read and analyze data collected from the observations separate from the researcher. For example, both the researcher and auditor read through pages of observation data independently and conducted content analysis and developed themes. The lead researcher and the auditor then met to compare and confirm or refute the findings of the lead researcher. Discussion was held on any disparate findings until an

agreement or compromise was found. This allowed for the emergence, examination, and resolution of differing explanations and conflicting data (Maxwell, 2005) between the auditor and the lead researcher.

Trustworthiness on parent and teacher interviews was established through member checking (Creswell, 2005; Lincoln & Guba, 1985). Each teacher/caregiver and parent was contacted and sent a copy of the transcription and a letter asking them to review the transcription for accuracy of the contents. An addressed, stamped envelope allowed the return of their comments to the researcher. Through member checking teachers/caregivers and parents were given a chance to add, change, or delete information on the interview transcript to more accurately reflect their perspective.

Trustworthiness was also established on the interviews by having the auditor read and review parent and teacher interviews to confirm or refute the findings of the researcher. The lead researcher and auditor met to compare results and discuss any differences in findings until agreement was reached.

The auditor also conducted an audit trail to ensure the right and proper sequence and collection of data (Brantlinger, Jimenez, Klinger, Pugach, & Richardson, in press). This involved a review of the researcher's notebooks for each child care center and the schedule of data collection, along with actual dates it was collected. The auditor reviewed the time lines, procedures, and data the lead researcher gathered during data collection at each site. Another task of the auditor was to review reported findings and then return to the original data source to confirm that the results being reported were evident from the original data.

Data Analysis

Level One: Analysis Within Each Case

Data analysis at level one for each case involved the analysis and interpretation of each data source within the case. The observation data for the lead teacher were analyzed, followed by the teacher and parent interviews, followed by the demographic data from the center director and lead teacher and finally, data from the temperament scales on the children were analyzed. This sequence was followed with each case. The following are descriptions of data analysis of each data source within each case.

The use of the constant comparative method (Hewitt-Taylor, 2001; Maykut & Morehouse, 1994) supported the organized, systematic analysis of observation and interview data. The constant comparative process is a method of qualitative data analysis that allows for the ongoing analysis and classifying of data while at the same time revisiting, reviewing, and comparing new data in light of the previous data. This enables an ongoing, evolving picture with new data always adding, changing, or challenging what has already been uncovered. New connections and relationships are found as the analysis moves from one observation page to the next or one hour to the next. Therefore, the initial categories and themes may evolve, change, or enlarge to accommodate new information.

Observations. Content analysis of the observation notes (running record) was conducted to provide in-depth details of teacher practices and behaviors. As previously mentioned, the constant comparative process was used to analyze the observation data. The observation notes were typed and put into a table with four columns with the

headings time, observation notes, personal comments, and content analysis. The data were read and reviewed repeatedly and personal comments were recorded. Then the data were again revisited and reviewed and the content analysis column filled in with practices that were repetitive and occurred frequently. Next, the content analysis was reviewed in five-page segments with earlier data revisited, compared to the present information, and categories of practices were identified and labeled. Categories of practices were then reviewed and common themes which emerged were identified. Four to five themes emerged for each lead teacher/caregiver that were indicative of her practices with the children.

The Caregiver Interaction Scale. The CIS was scored as noted earlier and each teacher/caregiver was given an overall score on the scale of 1-4 indicating the quality of her practices with the children. The higher the score, the more sensitive and responsive the teacher/caregiver was during interactions with the children. This total score, as well as the results of individual subscales, such as the sensitivity subscale and individual items, was used to establish trustworthiness with the observation.

Teacher and parent interviews. The teacher and parent interviews were transcribed and reread by the lead researcher for analysis purposes. Through multiple readings of the interview data, themes emerged. Themes identified by the teachers and parents as indicative of practices teachers used with the children were then compared in level two of data analysis with the observation data.

The Colorado Childhood Temperament Inventory. When the manila envelope was retrieved from each center, subscale scores on the temperament scale were computed

by adding up the scores (one through five) on each of the five items per subscale. Subscales such as emotionality, activity, and soothability were relevant to the current study and used in level two data analysis for comparison with the other data sources. Comparison of teacher and parent ratings on the temperament scale was made through the use of a table with items listed on one side, the child's initial at the top, along with teacher and parent headings. This allowed a comparison of data on each subscale for parents and teacher.

Teacher professional development history. Each teacher's professional development history was reviewed for amount of training on topics related to child development, particularly social-emotional development and emotion regulation. This information presented a picture of each teacher's training participation, and thus an indication of her knowledge base, strengths, and understanding of emotion regulation in toddlers. This information was included as contextual information to support each case.

Level Two: Comparison of Data Sources Within Each Case

Observations and interviews. Once each data source was analyzed and themes identified in level one, the second step of analysis required the integration of the different sources of data within each case. First, themes indicative of teacher practices found in the observation data were reviewed. Next, themes identified in both the teacher and parent interviews were compared to the observation data to confirm or refute practices that had been observed and described in the observations. Through comparison of lead teacher observation data with interview data, original themes were expanded upon or changed. Any disparate findings between the observation data and interview data meant re-

examination of data, a check with the Caregiver Interaction Scale, and then if still unclear, review of the demographic data sheets and the teacher professional development history.

Demographic data sheets. Demographic data sheets from the child care center director and the lead teacher were examined to obtain contextual information for the study. For example, a question such as “Is this the first, second, third, or fourth classroom the children enrolling at this center at six weeks of age have been enrolled in?” provides important information regarding the social environment the children live and play in at child care. Knowing that the early development of emotion regulation occurs within the context of close early relationships, this practice may be influencing teacher practices and interactions with the children. Information from these sheets was compared with observation and interview data to assess how these contextual factors may be influencing the practices the teachers use with the children. For example, the ratio of teachers to children may influence teacher practice or the length of time a child may stay in one classroom before being rotated to the next, may impact a child’s ability to feel a sense of safety and security and thus the ability to regulate emotions.

Teacher professional development-training. Teacher professional development training records were reviewed to assess the amount, types, and topics of training the teacher/caregivers have had in areas such as early relationships, responsive care giving, self-regulation, and social-emotional development. This information was added to the observation and interview data to again provide an in-depth picture of the teachers/caregivers and their practices.

Level Three: Across Case Analysis

After data analysis at levels one and two were completed, the cases were analyzed as whole cases between one another. Common themes from individual cases were read and reviewed again to identify similar and different themes across one, two, or all three of them. A table was developed to present a picture of similar and dissimilar themes across cases. Based on themes that emerged from data analysis, patterns of teacher practices became evident that may be considered to be supportive of building relationships with toddlers and other practices that were considered helpful to calming children who were upset, distressed, or crying.

CHAPTER IV

RESULTS

The overall purpose of this study was to explore and describe teacher/caregiver practices that may be considered supportive of toddlers learning to regulate emotions and behaviors. Two research foci were examined: (a) teacher practices that build relationships with toddlers; and (b) teacher practices used to calm children who were upset, distressed, or crying. Through data analysis of teacher observations, teacher and parent interviews, child temperament scale, center director and teacher demographic sheets, teacher professional development history, and the Caregiver Interaction Scale, themes emerged that described patterns of teacher/caregiver practices that were used to build relationships with toddlers and help them calm down when upset, distressed, or crying. This chapter will describe the results of data analysis and the themes of teacher practices that emerged.

An important aspect of case study design is writing of the results. Guba and Lincoln (1981) noted that results need to be written in such a way that calls attention to what is meaningful. The three individual cases in this study are discussed in detail in this chapter. The descriptions of each case, each teacher and her practices, includes contextual data to allow for a full understanding of how she is situated in the classroom. Teacher practices are described through the themes that emerged from data analysis of the above named sources. A temperament assessment of the toddlers in each classroom is also presented to describe children's responses to their teachers' practices. This is followed by

a cross case comparison of each lead toddler teacher to present similarities and differences in practices and potential effects on children's development of emotion regulation.

Case 1: Rochelle

Contextual Information

Rochelle has a high school education. She has spent 7 years working with children, six in after school care and one year with toddlers. She has worked in this particular toddler classroom for 6 months and has worked with the assistant teacher for 2 weeks. Primary caregivers are not used in this classroom. Rochelle does not have another job outside of child care and is not in school at this time. The assistant teacher working with Rochelle has been at the child care center for one month and in the toddler classroom for 2 weeks when the study began. Her participation was considered supplementary and was recorded only when she interacted with the lead teacher and children together.

There were nine children in this toddler classroom whose ages were 18-24 months, with six boys and three girls, eight who were Caucasian and one who was Hispanic. There was one child transitioning out of the classroom to the two-year-old room the day the research study began and there was no one transitioning into the classroom the week of the study. There were no children with disabilities in this room. For those children who enrolled in this center when they were six weeks old, this was their fourth classroom and at least their fourth set of teachers. In addition to the lead teacher, these nine, one to two-year-old children were also observed throughout the 5

days of the research study. Parents involved in the study were parents of the toddlers in this particular classroom. For all parents, being a participant required they complete the Colorado Childhood Temperament Inventory on their child, and for two parents it also required participation in an interview with the researcher.

The Setting

The child care center where Rochelle worked is a privately owned, for profit child care center with a four-star license, located in an urban area of central North Carolina. It serves 129 children and is open from 6:30 a.m. to 6:00 p.m. daily. The center employs 22 teachers who provide care for children aged 6 weeks to 6 years and after school care. Parents paid \$130 per week for their toddlers' care, while the cost for two-year-olds was \$125 and for three to five-year-olds was \$120.

The toddler classroom was an average-sized classroom (rectangular, 19 by 24 feet) with developmentally appropriate sized tables and chairs for the children, a play kitchen set with a few pans and dishes and a small table and chairs for two children, plastic blocks, many plastic manipulatives, a few dolls, push toys, and a book area just inside the classroom door with books, puppets, soft chairs, and a circle rug. There were musical instruments, a tape and CD player, individual cubbies for the children's belongings, and large windows overlooking the front of the building, the upper half painted with sky and clouds.

The room was equipped with a telephone and intercom connecting it with the front desk. One additional window looks into the classroom from the hall providing parents a viewing area after they have left their child in the morning. The diaper changing

area has a table that is turned sideways for easy supervision of children while a teacher is changing diapers. There is also a bathroom on one end of the room for children who may be toilet training. There are two sinks in the classroom, one of which has a set of steps in front so children finished diapering can wash their hands. There are two doors on opposite sides of the room, one leading directly out to the front of the building and the other into the hallway. An alphabet lines the upper wall on the far side of the classroom with farm pictures and brightly colored pictures of food at child level near the play kitchen center. On the near side of the classroom is a bulletin board for parents, inside the classroom door.

The outdoor area/playground was a very large mulch-covered area surrounded by a chain link fence, with many hard plastic climbers, a sand box, and a log cabin. A few tyke bikes, push toys, rocking fish, and balls were available. This playground was only for use by two classes at a time, enabling children of similar ages to play together and get to know one another. The physical setting of this child care center was clean and well maintained.

The operating schedule for this classroom was 6:30 a.m. to 6:00 p.m., with breakfast served around 8:15 a.m., outdoor play from 8:50 a.m. to 9:30 a.m., a daily art project at 9:45 a.m., lunch at 10:30 a.m., and naptime at 11:00 a.m. Communication with parents was during drop off and pick up times and through phone calls when a child did not feel well, was hurt, was bitten, or had bitten someone else.

It should be noted that during the week of the study there were four or five children who had been sent home sick due to a red rash over a large part of their bodies.

Some children returned the next day, while others did not. The assistant teacher working with Rochelle resigned within 2 weeks of the observations, so Rochelle had another assistant teacher working with her when the researcher returned to pick up the temperament scales.

As reported earlier, Rochelle had a high school education. Rochelle's professional development history reveals training in the Early Childhood Credentials one and two in 1998 and CPR, First Aid, SIDS, Communicable Disease, Diapering, and Hand Washing in the years since then. Beyond Credentials one and two Rochelle has not had any training in child development or social/emotional development of young children or in behavior management. The bulk of the 7 years working with young children has been spent working with after school care.

Themes

Following data analysis of observations, parent and teacher interviews, demographic data sheets, professional development history, and child temperament scales, four themes emerged that were indicative of Rochelle's practices with the children. They were (a) the teacher's communication with the children was a mix of responsive and more often restrictive verbal/non-verbal communication; (b) the teacher was inconsistent in both her physical and emotional presence and supervision of children and sensitivity to their needs; (c) the teacher directed and engaged periodically with the children in play activities on the playground, during art projects and early morning table toy time; and (d) the teacher's discipline practices appeared to be inconsistent and at times unwarranted.

Themes will be discussed in sequence and supported with evidence from data sources. Also, general data from a temperamental assessment of each child, by both Rochelle and the child's parents will be shared. Rochelle is referred to as T1 throughout the data sources and the assistant teacher as T2. Children were noted by a single or double capitalized letter.

The teacher's communication with the children was a mix of responsive and more often restrictive verbal/non-verbal communication. Throughout the day Rochelle communicated with the children using both verbal and nonverbal means. There was a blend of what Stone (1993) and Hestenes, Cassidy, and Niemeyer (2004) might call responsive and restrictive teacher language, with some kind and some harsh statements made during play time, and mostly closed questions asked of the children during art projects. However, there were also times during morning outdoor play when Rochelle would engage in reciprocal interactions and more responsive language. Examples of Rochelle's verbal and nonverbal interactions and communication with the children follow.

It is Thursday morning at 8:24 a.m. and there are six children present and all are at the table.

T1 - Collects up books and then does shapes and colors. T1 - adjusts a few children in chairs. T1 - say circle, they – circle. T1 - yellow circle, they lello circle. T1 - look at GU's shirt, look at T's shirt, yellow! T1 - red, red, remember the red apple we did yesterday, say red. They red. T1 - is down on the children's level at the table and giving eye contact, joint attention and she is in close proximity. T1 - down on level at table showing colors, and shapes. T1 - "Don't tear bib C." T1 - smiling, eye contact says white-look at walls they are white, ceiling is white. T1 - smiles, eye contact, smiles again as they respond. T1 - GU want water she says. No response.

T1 - purple. 8:27 a.m. – T1 - continues to show shapes and colors. What's this? Heart says T1. T1 - where is your heart? Who lives there she asks, Jesus! She points and smiles, eye contact. T1 - what is this? A diamond she says. They make diamond with fingers, she does this and they try. (Observation, Thursday)

Another example is from Tuesday morning at 8:34 a.m. The children are eating at the table. Rochelle is helping the children eat and get food on their spoons.

Come on JF – Are you lazy this morning T1 asks? T1 - feeds JF some grits and applesauce, continues to feed JF with spoon. A few minutes later to T, You're just lazy as she feeds him spoonful, now back to JF feeding him. (Observation, Tuesday)

On the same day while transitioning into the classroom from the playground she speaks to a child who appears to be straggling behind the rest:

Come on GA! You're always in your own little world, come on GA as he walks away in other direction. (Observation, Tuesday)

Throughout the week she mentions this type of comment to and about this child several times. On Wednesday, during lunch routine,

T1 - sees C slipping in chair, lifts him up – getting lazy she says to him. To GU - T1 comments turn around GU, you know how you spill milk (Observation, Wednesday)

Observations of Rochelle through the week show a mixed picture of morning greetings to some parents and children, and silence to other parents and children. It is Friday at 8:15 a.m. Rochelle is changing diapers and there are seven children in the room.

A person from the front office is here acting as the assistant to Rochelle, to maintain ratio until T2 arrives.

Door opens and mom and W arrive (young one year old) and she drops him and leaves - no words to teachers at all (and they no words to her either). (Observation, Friday)

Outdoor play time was a usually fun time for both children and teacher. It is Tuesday at 8:54 a.m. and they are enjoying bubble play on the playground. Rochelle is engaged with the children in a playful manner while outdoors; laughing and smiling were a part of this play.

T1 - 'Come here to the children. Want to blow bubbles?' T1 - dabs JF's face with Kleenex as he is sweaty. T1 - 'wait a minute, take turns' (she says) as she blows bubbles and they try to catch them. T1 - is down on the children's level and holds up bubble to them so they can try to blow the bubbles, each one having a turn. T1 - to C, holds up bubble stick. T1 - to GA, 'There you go GA - do again?' T1 - 'Look!' She demonstrates bubble blowing. Children laugh and squeal in response. T1 - 'Want a bigger one? Want a real big one? Let me stand up and do it.' She stands up and blows bubbles. T1 - 'Here come some little ones.' She blows and there are little bubbles. T1 - blows, 'ready for big ones 'she asks, again? T1 - smiles and laughs. T1 - to C, 'you have to turn around.' Children squeal and chase bubbles. T1 - continues to blow bubbles. Children run back and forth to catch them. Children laugh, squeal, jump up for bubbles. T1 - 'Hold on son,' as she blows more. JF to T1 - ' I have some?' T1 - blows, children squeal and jump to catch bubbles (4 boys). T1 - 'Look, look JF' she blows bubbles. T got it. T1 - 'Behind you to JF.' JF turns and sees and pops bubble. T1 - laughs (Observation, Tuesday).

It appeared that when Rochelle was on the playground that it was easier for her to engage in more developmentally appropriate play and interactions with the children. It is Wednesday at 8:45 a.m. and they are outside.

T1 - pulls GA in a car around the yard, ‘pick your feet up’ she says! ‘There you go’ to GA as he goes down hill on bike. ‘Whooo! Ready? Pick up your feet’ as she lets his car go down hill. T1 - goes to JF and pats on head and pats on back. She goes to slide to C and says ‘what are you doing?’ T1 - gets down on child’s level and says ‘see the bug’ to C. ‘See the bug right there!’ ‘That’s a bug’ to C. C- ‘Yeaah, Yeaah!’ T1 - ‘Bug, that’s a big bug.’ T1 - stands up now. T1 - smiles and tells T2 that C wants to kill the bug and wants her to kill the bug. She is standing up at this point. (Observation, Wednesday)

An example of verbal and non-verbal communication from indoor art project time is from Friday morning:

At 10:08 a.m. T1 - puts on gloves. T1 - sits on tiny yellow chair at table. T1 - makes red water with food coloring. T1 - What is this, as she pours blue food coloring into the next one (cup). Blue says T and others. T1 - makes blue water. Plenty of eye contact, proximity and joint attention. T1 - now we’ll all have a turn, sit in seats and watch. GA you first. 10:11 a.m. all children are engaged and watch GA. T1 - holds GA hand and says squeeze it. Look as different colors come out. T1 - “sit back” to the children. GA is finished and T1 - OK stay there GA and watch your friends- 5 more to go. GA tries to touch it and T1 says “No.” T1 - Ok T, she fills dropper and he squirts out food coloring onto coffee filter. T1 - what color T? Lello he says. T1 - yellow. Meanwhile, C takes off shoe and examines it. 10:15 a.m. Expectation for children to stay quiet at table and they can’t do it. JH and C now up and out of chairs. (Observation, Friday)

Rochelle’s engagement with children at these times means there are times when the whole group gets together for a short amount of time for a fun activity. However, all children are expected to participate at the same time. As indicated in the data source above, the children often wait for the activity to begin, resulting in their leaving the table, only to be brought back again. Rochelle’s response was to use verbal directives and physically take action to bring children back to their chairs until she decided it was finished.

While inside, there were many times when Rochelle was challenged to use responsive language and practices as evidenced by the hurried manner in which she transitioned the children through hand washing and readiness for lunch on Wednesday. They are finishing their art project for the day a little late. It is 10:24 a.m. and Rochelle is down on the child's level at the table with Y.

T1 - gives him a spoon with paint on it and he paints, 'good job Y!' Want to do more now? She gives cookie cutter to him, adds more paint and gives to him. He paints. T1 - takes it all away and says all done, good job Y.

T2 - has put bibs on children for lunch. 10:27 a.m. - T1 - Come to sink - roughly pulls children under arms and up and out of chairs - go to sink. Come to sink. T1 to Y you have paint on fingers, come to sink. T1 - throw towel away, go to table. 10:30 a.m. - T1 has washed each child's hands with them (VERY FAST) and gives each a towel to dry. Lots of pulling and picking up under arms, and directive language, go to sink, go to table, you don't need that etc. (Observation, Wednesday)

As they begin eating lunch Rochelle's language continues at times to be responsive and other times critical. It is 10:34 a.m. and the children are all at the table eating.

GU says 'want water!' T1 - Ok GU it's coming. T1 - takes cup. GU continues 'water, water and watches them (T1 and T2). T1 - GU water? T1 - pours more milk (for GU). 10:35 a.m.: T1 - 'Turn around GU, You know how you spill milk' . . . Within another minute: T1 - Sees C is slipping in chair, lifts him up. 'Getting lazy' she says to him. (Observation, Wednesday)

The teacher was inconsistent in both her physical and emotional presence, supervision of children and sensitivity to their needs. A hallmark of developmentally

appropriate practice is continuous and close supervision of children (Bredekamp & Copple, 1997). One of Rochelle's common practices was to leave the classroom or playground for breaks or other reasons, many times giving no notice to the assistant teacher or the children. Examples of this include:

8:59 a.m. Outside play. T1 next picks up GA to bring inside to have leg checked (bug bite).

9:05 a.m. T1 returns, says to T2 put ice on it to see if it goes down.

9:12 a.m. T1 and T2 talk about bug bite. T1 says it looks worse. T1 leaves to go call parent and take a break.

9:29 a.m. T2 (asst teacher) takes a break.

9:37 a.m. T2 (asst teacher) returns from break

9:47 a.m. T1 returns with red paint for art (has been gone 35 minutes)

9:48 a.m. T1 leaves to go cut apple (for art project)

9:51 a.m. T1 returns. (Observation, Wednesday)

9:08 a.m. T1 leaves to go get paint brushes

9:14 a.m. T1 returns

9:23 a.m. T1 leaves for break?

9:33 a.m. T1 returns and T1 and T2 talk

10:07 a.m. T1 leaves with G (bump on his head)

10: 18 a.m. T1 returns with G

10:19 a.m. T1 leaves to call another parent as a child has bitten another while she was gone.

10:30 a.m. T1 returns as T2 is passing out plates after saying prayer (for lunch).

10:45 a.m. T1 leaves room to get some mats (next door) for young one year olds.

10:53 a.m. T1 says needs a mat for W and T2 goes out door to get W mat while T1 continues to clean. (Observation, Thursday)

It is interesting to note that there is a telephone in the classroom as well as an intercom that connects Rochelle to the main office, yet she does not use it.

While Rochelle was in the room she spent time cleaning and gathering art materials or other things with her back to the children. On Tuesday at 8:41 a.m., as they are finished eating breakfast snack, another teacher comes in the room and says

Can I borrow one of you for a moment? T2 says to Rochelle, you go, as she is wiping a child's face. Rochelle is gone a few minutes and then returns to start cleaning up. Rochelle returns and now wipes floor with paper towels- she and T2 clean up. No one is watching the children. Children climb on the diaper changing table while teachers clean. T1 - 'Get down, NO!' goes and takes JF under the arms and moves off climbing the pillows up to the changing table. T1 - Oh! You are all sticky, grits! T2 gets a paper towel to wipe him. T1 goes back to wiping the floor. T1 drinks some ice tea and then goes out door. 8:51 a.m. T1 returns- goes to cabinet for something. T1 - 'no pushing, not nice' to C and GA as they push and shove. C and GA are waiting to go outside. T1 and T2 gather things, tissues, bubbles, other stuff. 8:54 a.m. they go out the door with children. (Observation, Tuesday)

Another example is from Thursday at 10:53 a.m. when lunch is finished and they are transitioning to nap:

T1, I need to get W's mat. T1 continues to clean. T2 goes out door to get W's mat next door. T1 continues to clean chairs. Three children walk around the room, GA and then two young one year olds with no mats to go on. Music is back on loudly. T1 washes chairs and tables. T2 gets out broom and dust pan and then goes to GA and puts him on mat again. T2 go get on mat W, to another child. (Observation, Thursday)

One of the morning routines for this teacher and children is that when they come inside from outdoor play the teachers frequently engage in chores or T1 leaves the room or they engage in teacher talk. Topics of conversation include lunch location, food descriptions, returning to work on time, tardiness, and probation.

It was Thursday when they came in from outside play and a person from the kitchen arrived with a cart of newly-washed toys. T2 is on a break. Rochelle and a teacher from another room begin to sort, file, and put the toys on shelves, going in and out of the room for more toys as the cart is left in the hall.

9:36 a.m. - Rochelle - time to line up! No advance notice is given. Children come to the door. 9:38 a.m. - As they come in, person comes from kitchen with cart of newly washed toys and says these are yours - so T1 and T3 (teacher from another room) take toys to rooms and begin to sort them. Children play and run all around room. 9:40 a.m. - Rochelle is down on floor putting manipulatives in plastic containers. Focus is on toys! Another person comes in room and drops off something and leaves. Rochelle looks at GA - No bite! No bite! He moves away and goes to book area. He had been trying to push a little girl on push toy and she didn't want him to for past three or four minutes and so she would scratch at his face - Now he tries to bite and Rochelle sees it. (Observation, Thursday)

On Friday a similar situation occurs. It is 9:40 a.m.:

T1, T2 and children come in the door. T1 - come on! Come on JF and GA. They are the last two through the door. So the two teachers and six boys are in classroom now. T1 and T2 talk. Children run around room as teachers talk. Researcher is only one watching children. T1 says to T2 let me go get this stuff. GU dumps a bucket of toys out on floor. T2 says that's ok just one bucket. Rochelle looks through papers for something she needs for art. T2 comments today we need to call and check on M. 9:45 a.m. Rochelle leaves the room to get ____ and food coloring for the art project. (Observation, Friday)

There appears to be inconsistent supervision in the care of these children, as there are times when no one was watching, or times when teachers appeared to be consciously ignoring them. When group activities are scheduled, children often wait as Rochelle cleans up, talks to another adult, or has them do their art projects together as a group. It is Tuesday and they have come in from the playground and are getting ready to do an art project. It is 10:02 a.m.:

T1 - gets up as person comes to door to talk about fruit (art project). JF gets up and comes to table. Now, all four boys at table sitting waiting while T1 cleans around room by herself. T1 - 'look almost clean?' T1 grabs C and lifts him back into chair and takes his shoe (roughly) out of his hand and puts shoe away on shelf. C - 'No! No!' to another child GA who comes up to him. 10:05 a.m. All four children wait while T1 cleans up classroom. JF holds his ear. GA yawns, C

rubs eyes, and T just sits there. GA starts undoing shoes. T1 - 'leave shoes alone' (harshly)! JF pokes ear some more, C pokes at his ear. 10:07 a.m. - Music plays, children sit and wait. (Observation, Tuesday)

As described in Chapter II, teacher warmth and sensitivity to children's needs is critical to their feeling a sense of safety and security (Richter, 2004). Sensitivity requires being able to read children's cues and signals for what is happening and take action for what is needed (Meins et al., 2001). When both Rochelle and T2 take a break while they are on the playground, they do not mention to the children that they are leaving. When their breaks overlap and both leave one after the other, the children come to the door looking for them. It is Wednesday and Rochelle has left the playground without telling another adult to go call GA's parents about the bite on his leg. The children engage in play with T2 while Rochelle is gone.

At 9:29 a.m. - Another teacher comes out door and says, take a break to T2. She leaves with no explanation to children. Children notice and four of five go to door that she just went through. Teacher on playground says something like 'What are you looking at, what you see in there. Come away from the door.' (Wednesday, Observation)

At 9:37 a.m. after both of their teachers have left the playground, the teacher who is supervising the children gives the children no advanced notice to go inside and says:

'come on guys, line up.' T2 - returns when they are at the door. When inside the children start to throw toys and chaos breaks out. JF pokes his ear. T2 puts music on. Children run all around and push cars and push toys. T2 - No GA! No! No! Get down! He is climbing on a toy. C and JF throw toys. GU goes to books. T2 explains to the researcher that the children act this way when come in or something like that. The boys continue to throw toys for a few minutes and she

stands by the sink. Rochelle is still not back yet from break. (Observation, Wednesday)

One characteristic of high quality teachers is their being with children while they eat lunch, offering support as the morning comes to a close and transitioning them with kindness and sensitivity to nap (Bredekamp & Copple, 1997). In this toddler classroom the children eat lunch alone after being served by Rochelle and T2. The teachers put out mats and then return to the table every few minutes to see if anyone wants more food. They offer more milk and more food to the children to make sure that everyone has all they want for lunch before nap. When children are finished eating lunch, teachers generally stand behind them to wipe their faces, pull their chairs back and out from the table, and direct the children to their mats. During the transition from lunch to naptime, Rochelle and T2 most days engage in chores to finish up the morning routine so they can go off to lunch themselves. An example is Wednesday at 10:51 a.m.:

T1 bends over T to wipe face and hands and (lifts) off chair. She then leaves with no words to throw out paper towels and he just stands there. It appears he doesn't know where to go. T1 returns and T continues to stand there and she walks by him and then starts to clean the table and notices him standing and says T did you forget where you sleep? T looks at her. She takes him to his mat which needs to be opened up. Rochelle opens mat up and T gets on corner of it. She moves him up. Then Rochelle moves his mat, drags it over to other area, lays him down again and puts blanket on him. T1 does paper work. T1 and T2 discuss M who is not here today and they question why. (Observation, Wednesday)

On Thursday at lunch time,

T1 - wipes GA hands and face standing behind him- pulls him under arms up and out of chair and turns toward mat and says go to mat. (Observation, Thursday)

During nap time, Rochelle often plays loud music. It is Wednesday at 11:07 a.m.

T1 fixes T's blanket, he sighs! T1 gets up and turns up the music which was already loud. Tells the researcher that the director came yesterday and said to turn it up. They believe that if music is loud the children will not hear other stuff going on says T1 to the researcher when researcher asks 'Are you told to keep the music up?' T1 says 'yes.' (Observation, Wednesday)

After T1 and T2 finish the chores, they sit down between the children to rub a few backs and chat before leaving for their own lunch. Because the music is very loud, they talk to each other in a loud voice, even though they are sitting right next to each other.

Providing an emotional sense of safety and security for children in times of stress is considered an important practice for young children. On Friday the fire alarm goes off while they are finishing up their art project at the table. It appears that Rochelle got so upset herself by the fire alarm that she was not able to comfort or explain to the children what was happening or to help them.

It is 10:17 a.m. Fire alarm goes off and T1 Yells everyone line up, (loudly) jumps out of chair (frightens children). T2 - Line up! T1 - Come on, come on!!! C cries, scared and others too.

The teacher directed and engaged periodically with the children in play activities on the playground, during art projects and early morning table toy time. Table toy time, outdoor play, and art projects times were the main times that Rochelle would actively engage with and attend to the children. These times were opportunities when Rochelle and the children focused their attention on one another and engaged in a basic level of fun. While most of the activities appeared to be chosen by the teacher, Rochelle did

attempt to plan activities that the children might enjoy. Many of the art activities were teacher directed and appeared to be above the children's developmental level, but Rochelle attempted to provide what she considered to be a fun experience for the children.

It is 9:08 a.m. on Thursday morning and they are out on the playground. Rochelle has left to get paint brushes and she returns at 9:14 a.m. She asks the children if they want to paint and then gets them started, demonstrating how to do it.

T1 - returns with paint brushes and says come here GU! They are going to paint on outside wall. T1 - announces loudly – you all want to paint with water? Three children come. T1 - demonstrates and puts brush in bucket of water and then on wall and hands one to GU and takes his hand, bends over and paints on the outside wall of building. Now all children paint and are engaged. T1 - empties out some water as too much in the bucket and returns bucket to area. T1 - goes to GU- 'paint the wall GU!' She puts hand on arm and demonstrates with him. Children paint wall. T1 and T2 talk. (Observation, Thursday)

It is 10:30 a.m. on Tuesday and Rochelle and four children are doing a project.

T1 - has plate of oranges and lemons with her and plates and napkins. T1 - shows orange to children. Gives to T- smell it (she says). Does it smell good? Squeeze it! Smiles! T1 - Ok pass it to GA. T1 - says same things to GA. T1 - now pass it to C. Ga passes it to C. T1 - Ok C what is it? C says apple. T1 - orange! Smell it! Now pass it to JF. C passes it to JF. T1 - Is it round, is it a circle? She now shows them pictures of oranges in an orange tree. T1 - where do oranges grow? T1 - now what are these? T1 - Lemons! T1 - lemons are sour, we have some cut up. Know what fruit this is, cantaloupe. Children say cantaloupe. T1 - what is this? Grapes! (Observation, Tuesday)

The children were engaged and seemed to enjoy tasting the lemons and oranges, although it was difficult for them to wait their turns at times. Rochelle brings children back to their chairs that get up to leave when no longer interested.

The teacher's discipline practices appeared to be inconsistent and at times unwarranted. The discipline practices observed during the week-long observation in Rochelle's classroom included criticism, sarcasm, commands, directives, warnings, threatening, scolding, physically removing children, taking things away, and physically restraining a child in time out.

Rochelle in her interview when asked about discipline responded by saying "Well, usually if we see a fight going on, we usually go to time out, or separate the children and say 'no I – we need to be nice to our friends, we don't hurt our friends.' If they are arguing over the same toy, we um, it depends, if you don't know who had the toy you can just, I don't know how to do that. So, if I see one and I know they had it, I would let that one have it and direct the other one to something different. Maybe, the similar toy, so they both can have the same. But if I don't know whose it is, I guess I go with the flow of which one has more of a temperament and the other one that will kind of ease off so. You know you can usually tell the one you can give them anything and they'll be okay. But you know one, might be like 'no,' I know what I want and it was that one' so, give me that. Well, the other one might be a little easier so they'll be happy as long as they have something." (Teacher Interview, Rochelle)

The interviewer asked for clarification and Rochelle expanded on her comment:

Rochelle responds with "Yeah, say if they did have the toy first, but you know that they have an easier temperament, they may be okay as long as they have something. You might, could give the toy they originally had and they're going to be okay with it. Because as long as they have something they'll give up that toy to that friend. 'Cause they're a little more easy going maybe than the other one, if it works out that way." (Teacher Interview, Rochelle)

Parent one reported:

"She'll separate them if they need to be separated. If they're taking stuff from each other, she'll give the toy back to the child who had it. Just [slight pause]

she's pretty good with that, with getting the disagreements settled. If a child needs to be shadowed she usually does that for most of the day if she has to."

Interviewer - Ah, huh, shadowing for . . .? Parent One – "If it's a biter or somebody who's aggressive for that day or whatever." (Parent Interview, Parent One)

Parent Two agreed with some of Rochelle's reported practices by noting

"All I know of this is ah from, from phone calls we get if our kid's bit or hit or something like that. We'll get a phone call. Or at the end of the day she'll have a report written up or she'll, she'll tell us. Ah, never witnessed it first hand, ah but she'll tell us. Ah you know she, obviously they call it 'TLC' tender loving care to the kid. Ah, um, you know put the kid who bit him in time out, something like that so that's all I know. Haven't witnessed it." Interviewer asks, so, you have not seen when you have dropped off or picked up, settling a disagreement with any kids? Parent Two added "I mean, no, other than you know telling a kid 'no, don't take that, that's so and so's, or let him play with it,' things like that. So no real disagreements." (Parent Interview, Parent Two)

Observation of Rochelle's practices to respond to behavioral challenges with the children reveals they are in agreement with some of the practices mentioned by her and the parents.

As the children and Rochelle transition into the classroom from outside play, she scolds GA for climbing into the sink and putting on the water on with a few other children. She next disciplines JF, who was also in the sink, in a more stern way:

It is 9:35 a.m. T1 - to JF, 'Time out, time out!! Lifts him under arms and puts on floor as he had gone and gotten back in sink after she got them out. T1 - Sit in time out! Sit in time out! He lays on the floor and will not sit up and T1 talks with him and physically sits him up and explains, you'll have to sit here while we go to table and be by yourself (she threatens). He does not get up and they wrestle a bit. T1 - pulls him up and he lies down. She takes his arms and he lies back down. She lets go and goes and puts music on for children to dance to while she does diapers

...

Three boys dance to music C, T, and GA. Meanwhile, JF is now in the book area standing on his head. Three boys continue to dance and laugh and wiggle. They laugh and laugh and twirl and twirl. T1 - picks up JF and changes his diaper. T1 - finishes JF diaper and carries to the sink. Puts water on, 'Ok rub your hands together' he reaches for the soap, 'No' she says, 'I already gave you some, rub your hands' he does for just a moment and she (roughly) lifts under arms and off stairs at sink and hands JF a paper towel and says 'Ok. Put in trash' JF wipes his hands and throws in trash. (Observation, Tuesday)

T1 now changes another child's diaper and meanwhile:

JF takes stickers off the sink (sink near door). T1 - 'No JF! No JF, Please put that back! Bring to me, you can have one later.' He brings to her. Now as T1 changes C's diaper JF starts to throw all toys off shelf on floor. T1 - 'No JF! No JF! You're going to hurt your friends, Time out!' She lifts C off table.

T1 - takes JF to time out and he won't stay there and runs back to throw more toys. T1 - puts (him) back in time out (place on floor, in front of diaper area). 'You're being ugly to your friends.' T1 - has to physically keep him from getting up again. JF tries to get away and T1 grabs him back again and sits him down, now stands him up and says 'you stand in time out.' He won't and keeps leaving. T1 - physically blocks the way and ends up sitting with him in time out.

It is now 9:50 a.m. and T1 - lifts JF under arm and says 'are you ready to clean up and play nice with friends?' JF does not respond. T1 - repeats the sentence and then lets him go. They go to area to clean up and T1 gives him a container to clean up with. T1 now takes T to do diaper. Children are not cleaning up. T1 to JF 'want to come again to time out? Don't throw then.' JF throws toy! T1 - goes back to diaper changing. (Observation, Tuesday)

JF was an obviously challenging child for T1 and yet it was surprising that she chose him to discipline further when there were other children besides JF in the sink, even after she had gotten them out the first time. Over the course of the week there were additional struggles with JF. Another child, GA, presented similar challenging behaviors to T1 and yet her responses to GA appeared much less punitive. T1 seemed to spend more time with GA on the playground and would scold him for behaviors similar to JF's,

yet the time out procedure was used only with JF. Upon examining the data it appears that T1 disciplines GA with scolding and directives and T2 does some of the disciplining of GA too, although not with time out.

On Friday morning they have finished breakfast snack:

T1 and T2 wipe up children, wipe faces and hands. T1 - to GA- turns him around and says go to books, we're going outside. GA goes to sink area. T1 - sees GA as he turns on water in sink and so she gets under arms and lifts off and out from area. GA goes and climbs on book area couch, then falls. GA cries! T1 - goes to GA and lifts up, pats on back of head, 'says can't be climbing' GA next takes out push toy out and drives it. T1 - No! and takes it away and then goes back to cleaning. He GA, takes another push toy out and pushes it.' There is no further response from T1. No one is really watching the children; all (teachers) clean. (Observation, Friday)

On Wednesday morning after breakfast snack:

Children run around, some fuss. GA dumps over a table. T3 intervenes. T1 and T2 are getting a snack cracker for selves (before they go outside). T1 - does not take any action with GA. (Observation, Wednesday)

On Thursday when the kitchen person brings the cart of newly washed toys and T1 and T3 are sorting them and putting them on shelves GA starts to bite. T1 - responds with

'No Bite! No Bite!! 'He moves away and goes to book area. There is no follow up with GA. Meanwhile, 'GA goes upside down in the book area (stands on his head) and now wanders a bit.' A short time later, T1 is doing diapers and GA is dumping containers of blocks and manipulatives on the floor. T2 - 'GA stop it.' GA has dumped many plastic containers of manipulatives on the floor.' (Observation, Wednesday and Thursday)

GA appears to have similar behaviors as JF and yet is scolded or physically taken away from areas the teachers do not want him to be in, instead of being put in time out. JF appeared to be treated different than all the other children in this classroom.

In an interesting development on Friday when Rochelle takes a break and has left the playground and T2 is on break as well, a person who has not been in the classroom comes onto the playground to cover for the teachers. This person introduces herself to the children, so they know who is watching them. She then engages in play with the children including JF, on the ship climber and has them laughing and talking with her about the ship and swimming. JF appeared to be having a good time with this teacher. When Rochelle returns from break, not one full minute goes by and she puts JF in time out for bumping a child.

Temperament Assessment of the Children

All children had their temperaments assessed with the Colorado Childhood Temperament Inventory (Rowe & Plomin, 1977) by both Rochelle and their parents. Results for the five subscales of (a) sociability, (b) emotionality, (c) activity level, (d) attention span, and (e) soothability demonstrated that parents viewed their children as less emotional than Rochelle did, and less likely to cry easily or react intensely when upset. Five out of eight parents felt their child was much less emotional than Rochelle scored them to be. The differences in scores for parents and Rochelle on emotionality were further apart than any other subscale. Reasons for this may be that their parents are able to calm their child faster than Rochelle, or they perceived their child managed their emotions better than Rochelle did.

Only three parents out of eight reported their child was able to be soothed easier than the teacher reported. However, six of eight parents felt their child had a longer attention span and five of eight thought their child had a higher activity level than what Rochelle reported. There were almost an equal number of parents who felt their child was sociable compared to the number that Rochelle felt were sociable.

The observation data revealed that Rochelle treated JF differently than the other children in this room, and it is interesting that she scored JF high on emotionality (19) and his parents scored him less emotional (9). Both his parents and Rochelle scored JF as highly active (25/23) and almost equal on attention span and soothability. It appeared that JF and Rochelle had a lack of ‘goodness of fit’ (Chess & Thomas, 1991) between them as JF appeared to antagonize Rochelle and she kept an eye out for him at all times and was quick to take action to put him in time out.

Looking at this classroom from a systems perspective, each time JF challenged Rochelle with his behavior the whole classroom was affected. First of all Rochelle would become upset and go to put JF in time out. Each time this occurred Rochelle became more punitive and harsh and less available to other children in the classroom especially the day she spent time sitting in time out with JF. His behavior and Rochelle’s responses and hypersensitivity to it, appeared to be a pattern of interaction that was well entrenched before the research study was conducted. The other children in the room appeared to tune them out when Rochelle was disciplining JF as if it was familiar to them. One example of the other children tuning them out was on one occasion when Rochelle was fussing with JF to put him and keep him in time out, she stopped and got up and went to

put on music for the other children to dance and sing to. It was a bizarre scene as the other three boys in the classroom began to sing, dance and twirl around and around and laugh as Rochelle went back to continue arguing and fussing with JF. The three boys who were dancing, singing and laughing appeared to not even notice what was going on in another corner of the room. Again, they appeared to be familiar with this behavior.

One influence on Rochelle's practice from JF was that she appeared to become less grounded, less sensitive and more impatient with the children as the morning progressed. She would pay little attention to the children and when they didn't do what she wanted she would grab them under the arms and bring them back to their seat or speak a bit harsh to them. She also would leave the classroom on breaks or for art materials or other items. It became at times a very chaotic classroom as her practices became more scattered, impatient and insensitive.

Rochelle in her interview with the researcher noted that temperament is a factor when settling challenging behavior with children in her classroom. She reported that if two children were fighting over a toy she might be able to give the toy to the child with the difficult temperament if the other child was willing to let go and be satisfied with another. This mentioning of temperament in her interview acknowledges her awareness of the fact that certain children may be more challenging to relate to than others. She remarked to the researcher that JF is the most difficult child she has ever worked with.

It is interesting to note that on Friday, the last day of the study when the substitute came on the playground she and JF and the other children played well and were laughing

and talking and having a good time until Rochelle returned and put JF in time out almost immediately.

As a teacher/caregiver of toddlers who sets the emotional tone and climate of the classroom, Rochelle was influencing her children and teaching them about relationships and how they can expect to be treated by her interactions with each one of them and the group as a whole. The pattern of interaction and proximal processes engaged in by Rochelle and the children certainly were influenced by the children's temperaments (especially JF) and likewise, Rochelle's temperament, education level, professional development history and job status impacted the classroom experience for the children.

Trustworthiness

Trustworthiness on this teacher's practices was assessed by scoring her on the Caregiver Interaction Scale (Arnett, 1989), a 26-item Likert-type scale used to assess teacher responsiveness and quality of care giving. An assistant researcher number one assessed Rochelle's practices two times on Wednesday of the week the study was conducted in her classroom. Results of the two scales reveal that Rochelle had an overall score of 2.97 out of 4, meaning her responsiveness to the children was somewhat less than 'quite a bit true,' which would have been a 3. When the sensitivity subscale was examined separately from the total score, Rochelle received a score of 2.0 meaning her sensitivity to the children and their needs was 'somewhat true.'

On item number five, 'seems distant or detached from the children,' she scored a 3.0 each time meaning that this statement was 'quite a bit true' of her practice. Other noteworthy items were eleven: 'seems enthusiastic about the children's activities and

efforts,' where she scored a 2.0 each time meaning 'somewhat true,' and number fourteen: 'pays positive attention to the children as individuals,' where one time she scored a 1.0 meaning 'not at all true and the second time a two meaning somewhat true of her practice.'

On question five, 'seems distant or detached from the children,' and question fourteen, 'pays positive attention to the children as individuals,' Rochelle's scores match her observed practices and theme of inconsistent supervision and sporadic sensitivity to the children.

Summary

Four themes were identified through data analysis of Rochelle's practices: (a) the teacher's communication with the children was a mix of responsive and more often restrictive verbal/non-verbal communication; (b) the teacher was inconsistent in both her physical and emotional presence, supervision of children and sensitivity to their needs; (c) the teacher directed and engaged periodically with the children in play activities on the playground, during art projects and early morning table toy time; and (d) the teacher's discipline practices appeared to be inconsistent and at times unwarranted.

Analysis of data sources revealed a variety of practices used by Rochelle, yet there were differences noted in the quality of practices used with certain children and at certain times or days. There were activities such as playing bubbles on the playground that appeared to be fun, engaging, and responsive to the children. There were also times when Rochelle's practices seemed developmentally inappropriate, such as when she leaves the classroom or uses a time out procedure that included physically restraining a

child. Chapter V will discuss practices that may be described as supportive of growth promoting relationships with toddlers and quality practices used to calm down children who were upset.

Case Two: Tori

Contextual Information

Lead teacher number two has a high school diploma and has worked with young children for 7 years 5 months at the same center, in the same room, and with the same assistant teacher. They do not use primary caregivers, Tori does not have another job besides her work as a child care teacher, and she is not in school at this time. The assistant teacher, as noted earlier, has been working with the lead teacher for 7 years. Her participation in the study is considered supplementary and was included when she interacted with the lead teacher alone, or when they both interacted with the children together.

The nine children enrolled in this toddler room were 14 to 24 months old, with four Caucasian, four African American and one listed as other race. There were no children transitioning into or out of the classroom during the week of the study. There were no children with disabilities in this room and for those children enrolling in this center when they were six weeks old, this was their fourth classroom and at least their fourth set of teachers. These nine toddlers were observed with their teachers during the week of the study. Again, for parents being a participant meant giving permission for their toddler to be observed, filling out the temperament scale on their child, and for two parents, granting an interview with the researcher.

The Setting

Child care center number two is a large, for profit child care center, part of a national franchise, located in central North Carolina with a four-star license. It serves 190 children and their families and is open from 6:30 a.m. until 6:00 p.m. daily. The center staff serves children aged six weeks to six years and after school care with 26 teachers. There were nine children in the toddler room and their parents pay \$145 to \$150 per week for their care, while weekly child care for preschoolers is \$130.

Toddler classroom number two is a very large room shared with another group of children, yet separated from them by bookshelves and cubbies lining the middle of the room (a long rectangle, 12 feet by 36 feet on each side). On one side are 5 one-year-old children with their teacher (T3). On the opposite side of the dividers, the area of the research study, are nine toddlers, 14-24 months old with their lead teacher (Tori) and the assistant teacher (T2). The older toddler classroom is a long, rectangular shaped room with two gates, one for parents and children to go in and out of and another halfway down the classroom enabling children to pass through to go outside to play. The classroom has many pictures of children and adults, especially elders of many cultures posted on the walls at children's eye level. On the long wall there are numerous copies of children's art work and pictures of those children currently and previously enrolled in this room. There is a soft climber in the very middle of the room which children use throughout the day with a large well-worn rug underlying the climber for safety. Another large, colorful, well-used ABC rug covers the far end of the room. Shelves basically

stand along the 12 by 36 foot outline of the room with one shelf positioned crosswise creating a center space for manipulatives.

Center areas are not clearly defined and many shelves have few toys. They do, however, have multiple copies of similar toys available and there is a closet that teachers periodically go to for additional materials. The room gives the impression of having been very well used and in need of refurbishing. On the front end of the room there is a diaper changing table/shelf area facing the wall with a mirror behind it to allow the teacher to monitor the children while she changes diapers with her back to them. There is a sink accompanying the diaper table, yet children are taken into an adjoining bathroom to wash their hands after a diaper has been changed.

There are plenty of cubbies for children's belongings, yet it was not clear whether each child was assigned a cubby. Likewise, at nap time blankets appeared to be randomly pulled from the cubbies. Name tags or identification of cubbies were faded and torn. There is a storage closet where sleeping mats and other toys are held. Teachers used this closet during the study to add materials to the room. Additional toys in this classroom included puppets, pillows, a few dolls, a very small kitchen play area with a few dishes, a few large legos and soft blocks, and perhaps 20 books that are kept in a basket on a shelf that the teacher could take out for reading. Hanging from the ceiling are kites, flags, rainbows, and a few smiley faces.

Outside, there was a rutted, muddy area alongside the building where rain water had dripped onto the ground. Teachers and children walked along this area on the way to the playground. Because it rained the first 3 days of the study, this area was quite muddy

on Thursday when the teachers and children went outside. There was one six-passenger buggy and one wagon to take the children to the playground that was a short distance from the room. Teachers loaded the children into the buggy and wagon to try and keep the children's feet out of the mud on the way to the playground.

The playground itself was large, easily accommodated the number of children and teachers and was surrounded by a large chain link fence. Like center number one, the two toddler classrooms went outside together. There were developmentally appropriate swings on this playground with front, side and back support that were used with young children. There were climbers, slides, riding toys, push toys and balls. There were also big trees in this playground that offered shade from the hot sun. This playground was near the main road, which on the one hand offered opportunities for the teachers to note the busses and trucks that went by, which they did, and yet it was a bit noisy.

The classroom was open from 6:30 a.m. to 6:00 p.m. daily. The children were served breakfast around 8:15 a.m., followed by a teacher-led playtime (songs, finger plays, ABC's, books, art projects). Outside time followed (weather permitting), lunch was served around 11:00 a.m., and then the children took a nap. Communication with parents occurred during drop off and pick up times and by means of a small daily sheet that was sent home called 'toddler times' noting diaper changes, how the child felt that day (happy, tired, cranky, sad etc.), and what they ate for lunch. When children felt ill, were missing an important item for the day, or needed to be sent home, the teacher could call the office on a phone in the classroom. The office would then contact the parents to convey messages.

Tori's professional development history revealed that she had training in the usual child care regulations such as SIDS, CPR, Playground Safety, and Communicable Diseases, but she also had training in 'Child Growth and Development,' 'Problems with Biting with Young Children,' 'Practices to Promote Social-Emotional Development,' and 'Effective Discipline' in the last 3 years.

Other background information included the immediate resignation of the director of this child care center on the last day (Friday) of the study. The director's resignation was met with cheers from the staff of this classroom.

Themes

Following data analysis of observations, parent and teacher interviews, demographic data sheets, professional development history, and child temperament scales, five themes emerged that are indicative of Tori's practices with the children. They were (a) the teacher and children engaged in a great variety of activities and shared experiences that appeared to build emotional connections and relationships between them, (b) the teacher engaged in a steady stream of reciprocal verbal/ nonverbal communication during interactions with the children, (c) the teacher was one with the rug, spending an extraordinary amount of time down on the children's level, giving eye contact, smiling, and playing with the children, (d) the teacher was both physically and emotionally present and responsive to the needs of the children, and (e) the teacher used developmentally appropriate discipline practices with the children. Themes will be discussed in sequence and supported with evidence from data sources. Also, general data from the temperamental assessment of each child by both Tori and the child's parents

will be shared with specific examples of a few children's individual responses to her practices. Tori will be referred to as T1 throughout the data sources while the assistant teacher will be called T2. Children are noted by a single or double capitalized letter.

The teacher and children engaged in a great variety of activities and shared experiences that appeared to build emotional connections and relationships between them. Tori engaged in ongoing activities and shared experiences with the children that provided a warm sense of community and group identity. There was an abundance of large and small group activities. These were activities in which Tori would invite, but not demand participation. The children came and stood or sat next to Tori by their own choice anytime she sat down on their level. Tori and the children would read, paint, play balls, trucks, and planes, xylophones, puppets, swing on swings, climb the climber and slide, play peek-a-boo, dance, and sing with plenty of hand motions and lots of smiling, laughing, smirking, and vocalizing with one another.

It is 9:33 a.m. on Tuesday and Tori and the children are sitting down on the rug.

T1 - reads with eye contact and expression of hand motions, voice and words. T1 - uses drama as reads book to them. T1 - E leave her alone please! M comes and sits in T1's lap and N is standing next to her and touching T1's leg and watches as book gets read. T1 - what this one about? Shows book? 'Snuggle Bunny, Snuggle Bunny,' she says. Music plays in the background as she reads at other end of the room. JA looks at other book. N looks at another book. ER plays with a toy. E drags a bean bag chair over to sit in it, next to T1. (Observation, Tuesday)

Through diaper changing time, Tori engages the children in conversation and singing, making the diaper changing experience a pleasant one. Most of the time she

would call their name just once and they would come running to see her and get their diaper changed. It is Tuesday at 10:10 a.m. and Tori calls M over for a diaper change.

T1 - says OK M! M comes. T1 - lifts her up to change diaper and continues to sing, gives eye contact and lifts and holds M as wipes mat, dances a bit with her, and then carries M to the bathroom to sink. CD is stuck again- the music is stuck. T1 - and M return, M walks away with paper towel and T1 - goes after her. M she says. M lifts up paper towel and T1 - takes it and says thank you! T1 - with back to the room says ER! ER comes right over. T1 - changes diaper says to ER, do we need new pictures up there (on underside of changing table). T1 - changes diaper then stands ER up. ER hugs and holds T1. T1 - dances her a bit and holds her, wipes table, gives eye contact, carries her into bathroom to wash hands.
 (Observation, Tuesday)

During outside play the younger one-year-olds and older toddlers play together on the playground. It is Thursday at 8:49 a.m.

T1 - puts MA and another child in swings and pushes. T1 then puts JA and ER in swings also. T1 - pushes swings from in front. Wheee! T1 - smiles to each of the four of them. T1 - gets wipes and wipes nose a minute. JA vocalizes. T1, what? JA, plane! T1, looks. T1 Yes, airplane! T1 continues to push four swings from the front, gives smiles, funny faces, kisses on cheek to ER. T1, stops swing up high, gives kiss and then lets swing go to ER and JA. T1 - takes young one year old out of swing, he cries. T1 - puts him back in. I thought you wanted out (she says). T1 - pushes his swing. T1 - gives MA kisses on forehead as swing comes forward.
 (Observation, Thursday)

Another example of outside play is from Thursday at 9:20 a.m. Tori and a few children are at the slide:

T1 - helps N on slide, helps up steps and holds arms while goes down. T1 - Whee! T1, do it again? N lifts arms up. T1 - picks her up and puts on top of slide again. N goes down and smiles. T1 - now D, T1 - holds his arms, ready, set, go! D goes down and smiles! T1, now my turn. T1, goes up slide and goes down. D and N smile. (Observation, Thursday)

Building individual relationships with children is a characteristic of high quality teachers and caregivers (National Research Council & Institute of Medicine, 2000) It is Wednesday at 10:24 a.m.:

T1, goes to cabinet to get some hand cream. JA stands there and does hand motions too, so T1, pats JA's hands so she gets just a bit of the hand cream too. They both wipe hands and smile. (Observation, Wednesday)

This same child (JA) carries baby dolls around more than any other child and Tori notices and comments about the babies and explains about tending to them. It is Tuesday at 9:59 a.m. and Tori is sitting on the floor giving eye contact and using plenty of touch as she and the children play cars. JA comes with her baby doll.

T1 - takes JA's baby doll and rolls out blanket and rolls her up, swaddles, demonstrates to JA how to rock baby, rocks back and forth. (Observation, Tuesday)

Tori uses an abundance of verbal nonverbal communication with the children as evidenced by the following:

Now T1 and N dance, T1 on floor takes N's hands and they dance back and forth, lots of eye contact, smiles, as they pull each other back and forth. (Observation, Tuesday)

When asked how the teacher supports the social and emotional development of the children Parent Two says:

I think she does that by doing group activities. Um, doing circle time, doing the story time. Um, learning to play together. Painting together. [sighs] Sometimes um separately, you know, in small groups. (Parent Interview, Parent Two)

Parent One, when asked about how the teacher supports and encourages child learning, comments about how good Tori is when she, the mom, brings her son to child care each morning and how he separates from her.

Um, well, as far as my child is concerned I see them, or see her interacting with him when he comes in, in the morning to when he arrives he isn't always in the best of moods. She kind of encourages a little [slight pause] individual time. And it kind of calms him down. It only takes a minute or two and once he calms himself down, she'll put him down and he'll start playing fine. He has no more problems. It's almost as if he forgets that I'm there or that I'm gone. So, I think that that's a good thing. I that's um encouraging growth, encouraging being aware of your emotional states I think. (Parent Interview, Parent One)

The teacher engaged in a steady stream of reciprocal verbal/ nonverbal communication during interactions with the children. Tori engages the children in plenty of verbal and nonverbal communication through singing, reading, rhyming, and dancing, and uses nonverbal communication as much as verbal. She narrates what is happening for the children and explains the reasons for what is occurring. It is Tuesday at 10:28 a.m. and Tori and the children are sitting down on the rug.

T1 - want to do 'Wheels on the Bus?' N and JA say 'bus.' T1 - and they sing 'Wheels on the Bus' and do hand motions. N gets up and raises arms to T1. T1 - lifts her up and puts her in lap. Children alternately sing and do hand motions. T1 - to JA, what song? T1 - looking and listening very clearly to what JA says. (After a moment) T1 - Skinamarinkydinkydoo song, is that what you want? JA nods and yes! JA now points and vocalizes. T1 - say please. JA- please. T1 - pulls out a xylophone off shelf and gives it to her. ER points. T1 - you want one too? T1 - gets it out for ER. Four children now play little pianos. T1 - sings 'Twinkle, twinkle, Little Star.' T1 - gives lots of eye contact, smiles, proximity and engagement. ER wants maze. T1 - lifts it up, says excuse me, as T1 lifts it up and off shelf and down in front of ER. (Observation, Tuesday)

It is Wednesday morning at 8:34 a.m. and Tori is reading “The Cat and the Hat” to a group of children. D and his mom come to the classroom and D has a messy diaper. Tori gets up to change D’s diaper, finishes it, and narrates to the children who are waiting for her.

T1 - ‘does that feel better’ to D as she lifts him in arms and takes to wash hands. T1 - to the children, ‘just a minute guys and we’ll read the rest of the story.’ Now all six children stand and wait for T1 (their own choice to wait). T1 - washes her hands. T1 - ‘Ok ready! Let’s go put D’s shoes on,’ goes to soft climber and sits down and puts D in lap and puts on shoes. T1 - pats D on chest as finishes.’ ‘Let me get you a name tag and we’ll be all set.’ T1 - gets D a name tag. ‘OK, are we done Cat and Hat ?’ I think you guys were losing interest.’ ‘Want to do Monkeys?’ T1 - settles onto the soft climber down on the children’s level, sitting on rug. T1 - reads ‘Monkey’ book - As she sits, children begin to settle around her. Some watch, some play with other toys but around her. T1 - ooh ooh ah ah!!! (monkey sound). Children E- ooh ooh! T1 - reads and pats ER. Children crawl and sit and crawl around her. ER is now in her lap as T1 - reads. N comes and vocalizes as T1 - reads. T1 - Would you like one? T1 -Gets out xylophone and gives to N. N says . . . (Observation, Wednesday)

One of Tori’s intentional plans for the children in her classroom is for them to hear about letters. Each day Tori engages the children in a time of ABC Cards. These are large homemade cards with a letter on them and a picture of something beginning with that letter. It is Wednesday at 9:05 a.m.

T1, turns down music. Gets out ABC cards. T1, to JA, come on, going to bring the baby? JA puts baby in basket and comes to bean bag chair next to T1. T1, starts A, alligator, snap, snap and A apple. T1, B (loud voice) is for bear. C, C is for cat. What do cats say? Children meow! T1, C is for C....., where is C....? Children point. JA gets up and leaves. T1, you going to get your baby? JA goes and gets baby. T1, E is for E.... T1, E is for E...! T1, F is for fish, puckers face. Proximity as the children crowd around T1. 9:09am, four of the six children are engaged with this activity at this point. T1, H is for heart, pats chest, bump, bump. H is for hair, JA’s hair, ER’s hair. T1, pats each ones hair as does this letter. J is for J..., J is for Jet, makes flying motions. N wants to move. T1, not really any

room for you back there honey to N. D wanders away. T1, lots of eye contact and pointing and touch as does these, and shows cards. (Observation, Wednesday)

Tori engages in many reciprocal interactions with the children. It is Wednesday at 9:40 a.m. and they are sitting down on the floor.

JA vocalizes. T1 - responds to her. JA, read book? T1, you want to read book? JA, book. T1 - gets up and gets books and takes JA and then N to read books at soft climber area. T1, gives the books to ER, N, and JA and then returns to trains, planes area (where she was) with D and E, she sits down on the children's level on floor. (Observation, Wednesday)

When interviewed and asked about the practices she uses to encourage or support children's learning Tori noted:

And we d-do a lot of art work ah to try and doing the painting and things like that and ah talk to them. A lot. Try to talk to 'em so they can get their vocabulary going. (Teacher Interview, Tori)

When asked in the interview about encouraging the social emotional development of the children, Tori says:

Ah, and again just talking to 'em all the time. And, and using the phone pretending to call their mommies. And things like that (Teacher Interview, Tori).

One parent in her interview reiterated what a great communicator Tori was with the children:

You know, little kids even when they're not talking, they don't know how to talk or they're just learning to talk, they still have their own ways of interacting. And some kids can be a little bit more aggressive than other kids. She talks to them still like they're little grownups. It's funny [laughs] sometimes, too but, I think

that that's a good thing. I think that even though they're toddlers, they're people, they're still kids. And she's still the teacher....I see her talkin' to, her talkin' to him, the other kids. How she keeps them from squabbling over a toy. Or fightin' over a snack. You know it's alm-almost the same as j-just the way we ... well, no I can't say the way we would do [chuckles]. I really enjoy. I really have to commend her on the communication that she has with the kids. The way she understands them. The way they understand her. The way she teaches them to communicate. Whether they're talking or just beginning to talk or not... she has a good line of communication with the kids. (Parent Interview, Parent One)

Parent one goes on to say how Tori talks to her son in the mornings when they arrive:

And when he comes in, he sees her even when he's falling out having a fit. It's all about me, I don't want you to go. She can speak to him. She'll pick him up. Even when he's throwing his tantrums or whatever, and he calms down. She starts talking to him and he calms right down. And you know, she doesn't have to carry him around the room or anything. She just talks to him for a couple of minutes. Puts him down and he's on his way. (Parent One, Interview)

Outside play is an opportunity for Tori and the children to engage in running, shouting, and kicking the ball. It is Friday at 9:00 a.m.

T1, now plays ball with E and a young one year old. T1, N want to come play, she invites. T1, kicks the ball, come on E she says. They run, smile and chase the ball. T1, ready to E, she throws the ball and then takes his hand and they run. E kicks ball. T1, good kick! T1, picks him up under arms and swings him back and forth and kicks ball and says 'kick, kick.' T1, now to D, Want to play ball? D comes to edge of mulch and grass and T1 extends arm and hand to him to get over edge of timbers into grass. D let's go (her) hand and chases ball. T1, D throw ball. D runs the other way. T1 - goes to him, bends down and smiles, extends arms, and says give me the ball. D gives her the ball. T1, stands up and throws the ball. T1, everyone go get it. The children run after the ball (Observation, Friday).

At 8:37 a.m. on Tuesday, ER asks Tori to read a book:

ER brings book to T1, says hop, hop. T1, says I'll read it in just a second, gives it back to ER. Tori now tends to M who is at table and getting into other children's food. When she finishes she comes back to ER to read.

T1, reads a book to three children, ER, E and M while JA eats. T1, scans the table as E goes over there as she T1 reads the book. T1, gives eye contact and joint attention to ER as reads book, sitting on soft climber. T1, includes children in reading by making sound and motions with children of different animals. T1 - wipes E's nose. ER makes vocalization. T1, notices and says are you being a seal? ER smiles. (Observation, Tuesday)

The teacher was one with the rug, spending an extraordinary amount of time down on the children's level during the day giving eye contact, smiling, and playing with the children. According to the National Association for the Education of Young Children (Bredekamp & Copple, 1997) an important practice of teachers of young children is spending a large amount of time sitting, kneeling, or bending down to the level of the children. This allows the teacher to be physically close and to engage in eye contact and give individual attention to children. This also provides opportunities for teachers and children to engage in play together, assuring both physical and emotional safety and protection for children's activities.

It is Tuesday at 8:30 a.m. and the observation has just begun.

8:30 a.m. three children and one teacher all eating at table. T1 is down on children's level, sitting on floor next to the table.

8:42 a.m. T1 gets down on level and sits on soft climber (to read). T1 gets up at 8:45 to get M away from the table.

8:46 T1 and three children read book down on soft climber.

8:50 a.m. T1 continues to read and play peek-a-boo with children down on soft climber. Gets up to clean table and then comes back.

8:52 T1 does ABC cards and gives plenty of eye contact and is down on children's level on carpet. T1 stays down on children's level until 9:03 a.m. when up to change a diaper and get out the paints.

9:13 a.m. T1 Ok you want to paint, she takes materials to table and sits on floor, children come over. T1 gets up to bring JA to table, then gathers around the table with children.

9:33 a.m. T1 goes and lays on soft climber and lifts up ER and hugs. Stays down on children's level reading and playing until 9:42 when T1 gets up for a tissue for M..., wipes 2 noses, one with one hand, one with the other and then gets back down and sits on carpet.

9:44 a.m. T1 down on level and takes ball and puts it in front of E, he turns and smiles. T1 and E roll ball back and forth between them. They next stand up to throw ball up high.

9:55 a.m. T1 is down sitting on floor rolling cars on floor with ER and M. She gets up at 10:06 a.m. to get tissues, change music and change diapers.

Throughout the morning Tori continues to bend down or sit on the floor or rug:

10:26 a.m. T1 is down on bean bag chair. Four or five children come around her. T1 asks what do you want to sing? They sing and play.

10:37 a.m. a stranger (person from office) comes in and T1 is up and holds ER to comfort her. Now transitions children to hand washing and table to eat.

10:45 a.m. T1 is down on floor at table with children playing transition games until lunch is served.

10:50 a.m. T1 gets up and does body parts game with the children until door opens and food has arrived. T1 helps serve food.

11:03 a.m. T1 now sits back down on floor, near table two with C. Talks to C until 11:06 a.m. when she gets up to put out mats and then to transition children to mats.

11:22 a.m. T1 goes to JA, sits down and takes her hair bow out and then rubs her back.

11:25 a.m. T1 now sits down between JA and D and bends down and kisses JA, says 'go to sleep'.

11:27 a.m. T1 still sitting patting heads and backs.

Each day Tori spent a large majority of her time sitting down on the floor or carpet with the children.

The teacher was both physically and emotionally present and responsive to the needs of the children. One aspect of developmentally appropriate practice is that teachers

are responsive to child needs and child-initiated requests (Bredekamp & Copple, 1997). It is Wednesday morning at 8:50 a.m. and one child dances around Tori and she notices:

Children play on xylophones four of them. D says . . . T1 - I'll wipe your nose in just a sec D. T1 - goes to put on a CD. JA comes and dances around T1. T1 says 'Want to do the Chicken Dance?' gives eye contact back and forth T1 and JA. T1 - puts on music. T1 - wipes D's nose- (asks) ready D? Ready to JA and N? T1 - and children do 'Chicken Dance,' clap and move arms and wiggle. T1 - sees ER's shoe off. T1 - puts it on. T1 - ready, ready, Come on D! T1 - good JA! They wiggle and dance. T1 - Come on ER, Come on E! T1 - next is spider. The 'Itsy Bitsy Spider' is now on. T1 - takes D's arms and dances him a bit. T1 - what's next JA? 'Head, Shoulders, Knees and Toes' is on next. T1 -pats each body part on N as music mentions it. Next 'Chicken Dance' is on again. T1 - Good M! T1 - claps and wiggles and four children do too of the six. T1 - 'now fast' T1 - and children yeah and clap!! T1 - Next do the Pony! T1 - dances with N a bit, claps her hands. (Observation, Wednesday)

Another aspect of appropriate practice is the teacher's ability to respond to children who are crying, offering comfort as they transition into care early in the morning. It is 8:30 a.m. on Tuesday and three children are eating at the table and JA and her mom arrive.

Mom and JA come in door, mom passes JA to T1, T1 comforts JA, pats on back and holds as she is upset to be separating from mom, mom leaves. T1, takes JA to wash hands. T1 says to ER just a moment, I'll get you ER. ER wants to get up from table. T1, gave eye contact as she says 'just a moment.' JA is crying. T1 continues to hold and comfort. T1, let's get some milk, puts her in chair, gives her some milk. ER, M, E and JA are here this morning. T1 now gets ER up from chair and wipes off and let's go. T1, gives kiss on forehead of JA as she bends over her. (Observation, Tuesday)

On Friday at 10:05 a.m. when one child D hits J on head with toy.

J cries and T1 comes and comforts, pats, brings next to her leg and pats and says just a minute (to others). T1 bends over him (J) and says it's ok, it's ok (Observation Friday)

When a stranger (person from the office) comes into the room Tori offers emotional protection for ER and prioritizes her children as most important when the 'stranger' asks her to leave the classroom and go fix the laminator in the office. It is Tuesday at 10:37 a.m.

Now ER in T1's lap. They turn and discuss pictures on wall right behind them. JA joins them and discusses pictures. T1 hugs and holds ER. Someone else comes in room and asks T1 if she can change the laminating paper in the machine. T1, not really until 11:30 a.m. she says (when children are at nap). Other person listens. ER looks fearful. T1, picks ER up and says it's OK. Person says I'm not going to get you (to ER)! T1, it's Ok ER! Other person gets up to leave. ER watches with a serious face (from arms of T1). (Observation, Tuesday)

During lunchtime some children are more tired than others and need to go to nap as soon as possible. Tori narrates, explains, and responds to ER on Wednesday at 11:00 a.m.:

T1 comes and sits next to N (on floor). T1 now gets back up and fixes something. (T2) will be back she says to the children. T1, wipes N's nose and then washes hands. T2 returns and gives D and M more food. ER fusses. T1 says to ER, ER as soon as C. gets beds out you can go lay down. T2, gives more food to a few others. JA looks and speaks to T1. T1, says what? T1 now stands next to table. ER fusses again. T1, it's coming as soon as I get a sheet on it, to ER. T2 now returns with sheets. T1 puts them on and puts ER right to bed. (Observation Wednesday)

On Thursday and Friday a new child who has not been there previously comes to the classroom. This child knows Tori from outside of child care, yet she appears frightened and cries whenever she is not either in Tori's arms, sitting in her lap, next to

her, or in the swings when outside. Tori is challenged to care for this child, as well as tend to other children in the classroom at the same time. On both Thursday and Friday Tori had six children by herself at 8:30 a.m. when the observation began. An example of MA's need to be with Tori every moment is Friday at 9:45 a.m. while Tori and the children are sitting down on the rug together playing.

T1 says, hold on, hold on, as T1 has to get up to wipe something in JA's hand. Immediately MA stands up and fusses. T1, wipes JA's hand and now returns down on the children's level on rug and continues ABC's giving eye contact and attention. MA has sat down again. (Observation, Friday)

There appears to be an emotional crisis that develops in the classroom on Thursday as Tori is unable to hold, carry, or be with MA all the time. MA cries and shrieks; Tori and the other children respond with self-regulating strategies of their own such as holding a pillow case, hiding under the table etc. It is 10:00 a.m. and Tori has been responding to MA's crying since early morning. T2 has arrived and comforts two other children who have just come in from the playground and are fussing. Tori is beginning diaper changing.

MA stands at diaper table with T1, crying (loudly). T1, you're next, hang on. T1, picks MA up, you're going to take a good nap today missy. T1 takes to changing table and changes diaper. T2 comforts ER and M on lap. T1 turns down the music. T2 talks softly to ER on carpet in her lap. T1 takes MA to wash hands and as soon as she puts her down she cries. T1 to MA, I'm right here, good girl. T1, takes MA to bean bag chair and puts her down. MA screams as she is left (very loudly). T2 continues to hold ER who is crying. MA stops crying. (Observation, Thursday)

Tori now changes N's diaper and MA comes to her again.

T1, come on N! N! Come on N! T2 - lets N up to go and N comes. N raises arms up to T1. T1 picks up N onto changing table. MA comes over crying again (loudly). T1 to MA, go sit with (T2). T1 changes N's diaper and puts her down. T1 and N go to wash hands. N goes to bathroom door and T1 opens it and says big girl. MA crying, walks around crying awful cry! ER crying in T2's lap. T1, MA go get cup. D walks around. J on soft climber and walks around. JA gets diaper change. E walks around. N now goes and sits in T2's lap. Boys seem to walk around and are wandering. E looks back and forth at MA crying and then to T1 to see what to do (social referencing). JA now sits on pillow and holds a pillow case (comfort) now chases a ball. Boys seem to wonder- what is going on? T1 stops and gets binky (pacifier) for MA and brings her to bean bag chair and lays her down and says 'stay there.' MA sits up. M (another child) throws up on the carpet . . . (Observation, Thursday)

Tori's next strategy is to take MA to the far end of the room to see if she will lie down for a nap:

T1 then takes MA to far end of room where ER is and puts down and puts blanket over her and gives binky (pacifier) and pats on head and leaves her again to finish diapers. T1, come on D. MA gets right up and cries! T1, I quit! I quit! She goes to MA at end of room and T2 takes over diapers and takes D for diaper change. (Observation, Thursday)

On Friday a similar situation occurs. They are on the playground at 9:05 a.m.

MA cries. T1, you were having a good time, being a good girl to MA. T1 pats her head and puts MA next to her leg. Then T1 gets MA a riding toy and puts her on it and pushes her, vroom, vroom she says. MA not too happy so T1 takes her off and says something's got to be fun out here. They go on slide. T1, 'here let me go down with you' T1 puts MA in her lap and they go down slide. MA is happy until T1 stands up. T1 to JA, (puts) in arms and goes down slide. T1, yeah! Loudly. MA walks around crying. T1 gives eye contact to MA and then walks away. T1 give me ball J, come on MA, you can come play. T1 here comes ball, throws it to her and she stops crying for a minute and then looks and then cries. T1 picks up MA and walks around with her. 'You are so crabby, a crabby bugger today.' (Observation, Friday)

Tori continues to be stretched and challenged by MA's crying. She varies her practice from responsive to directive/restrictive with MA. At times, Tori brings MA close when upset and then separates her at times as well, neither of which appear to work for any length of time unless she is holding MA. When returning from the playground at 9:25 a.m. Tori puts MA in the buggy first, possibly so she will feel safe, and then when they are at the room takes her out last so she can carry her into the room.

T1 goes to swings and lifts JA and MA off swings. T1 carries MA to a seat in the buggy. T1 come on D, come on W. MA is in buggy. MA watches T1 from there. They are walking to the room. T1 - picked up MA last out of buggy so could carry in room. (Observation, Friday)

It is 9:30 a.m. and MA is a bit quieter as T3 from the young one's room has just leaned over the gate and given MA and other children a few crackers. They eat the crackers and then:

MA fusses and points. T1, what is it? MA points to cubby. T1, all right and gets out MA's blanket and gives it to her. T1, Ok ready? T1 sits down on carpet and four children sit next to her. MA stands with blanket and J watches as T1 begins the ABC cards. (Observation, Friday)

At 10:10 a.m. on Friday the crying continues:

D hits J on head with toy. J cries and T1 comes and comforts, pats, brings next to her leg and pats and says just a minute. T1 bends over him (J) and says 'it's ok, it's ok.' MA cries. T1 takes both J and MA by hands and brings to her, next to her leg on each side and bends over them and pats them both and says it's OK, rubs J's head, pats them both, takes them to soft climber. T1 explains to MA- I can't hold you right now. T1 has a new strategy. She goes to the young ones room and gets a high chair and puts it next to the diaper table and puts MA in it with blanket and sippy cup. T1 - 'We'll see if this works.' MA watches and is quiet. (Observation, Friday)

When Tori is asked in the interview how she calms down children who are upset she noted:

Well when I'm not changing diapers [laughs], give them lots of love. Give them hugs. A-and find out, try and find out exactly what's wrong. And if it's something I can fix with a toy or you know get them something else that's fine. If not you just love 'em up. Give 'em lots of hugs and let them sit with you for awhile until they feel a little better. Or see if they need to go to sleep for a few minutes or things like that. (Teacher Interview, Tori)

When parent two is asked how the teacher calms down children who are upset she responded with:

Depending on what the situation is she'll love em. F-find out what the problem is. And um try to find a solution to it. Ah, whether you know they got hurt they'll pick em up and make sure that they're okay. If it's a disagreement over toys, find another toy. (Parent Interview, Parent Two)

Parent Two then went on to mention how when infants transition to their classroom the teacher (Tori) goes to the infant room each morning to say hello to the children so they know her when they arrive in the toddler room.

Um, my daughter's very particular about people. And ah her teacher would continuously come over every morning and spend time with her before she transitioned over so she knew who she was. So it would be easier for her when it was time you know move classrooms, she knew who her teacher was going to be. So, she would actually get up and go with her. And she would be familiar with her . . . and every morning she would speak to the babies so that they would be familiar with her when it was time for them to transition over. (Parent Interview, Parent Two)

The teacher used developmentally appropriate discipline practices with the children. Tori uses a variety of practices to discipline the children including redirection,

explaining, scolding, getting down on their level, distraction, and physically moving children. Tori does not use ‘time out’ as a discipline method as she mentioned in her interview. When asked how she settles disagreements between the children to calm them, Tori reports:

If I got enough toys then I try, if it’s a disagreement over a toy I’ll try and redirect and get ‘em the same thing, another of the same thing. If not, you know, if it comes to the like we have the one ball we just have to take it out [chuckles]. Take it like we had to do the beach ball the other day. Just take it and put it on the other side of the room and find something else to play with. Just start a whole new project. A whole new something. Something else going on. And we don’t have to fight. An-and I do tell ‘em now we don’t hit. We don’t . . . try to be nice to your friends. And just try and do it like that. Researcher: so I hear you mention redirection and then ah a second toy of the same kind and talking to them and that kind of thing? Tori: Right. Researcher: Anything else or is that kind of what you do? Tori: That’s pretty much it, because we don’t do time out or anything like that. (Teacher Interview, Tori)

Parent One has already spoken about how Tori calms down her child when she brings him in the morning, how she holds him and speaks to him just for a few minutes and then he is fine. She also spoke about how she calms down children who may be fighting over a toy by getting a second toy and showing them they don’t need to fuss over it, as there are two. She mentioned holding them and talking with them. She then speaks of how Tori settles disagreements:

As far as settling disagreements, I think that again whether she separates the kids, whether she, I mean talks to them individually, talking to them together, she may bring things into their view to dis-distract. If it’s not two of the same item, she may use something else to distract the other one or t-to redirect the other one. (Parent Interview, Parent One)

An example of Tori's discipline is Tuesday at 9:24 a.m. and they are painting and ER gets on the table:

ER gets on table. T1, ER get down please. ER again on table and T1 takes by the arm, pats on head, taking of hand or arm to move. ER fusses again. T1 you already did your painting to her.

Later on Tuesday at 10:30 a.m. Tori and children are on the floor singing and playing pianos together.

M pokes at N, hits with rattle. T1 M! Now E hits M. T1 Come here E. E comes and T1 lifts him into her lap and brings his face to her face, gives eye contact and says not ok hitting! (Observation, Tuesday)

On Thursday at 10:40 a.m. after a lot of crying by MA, JA starts to hit.

J cries as JA bops him with baby on head. T1 comforts J in arms and hugs and pats asks are you all right? Meanwhile, JA drops to the floor with a frown. T1 I'm not mad at you JA, just have to be careful.

A few minutes later at 10:50 a.m.:

JA hits N. T1 JA don't hit, not nice! (Observation, Thursday)

Through a variety of practices such as speaking to children, explaining, scolding, and holding them in her lap, Tori disciplines the children in her classroom.

Temperament Assessment of the Children

All children had their temperaments assessed with the Colorado Childhood Temperament Inventory (Rowe & Plomin, 1977) by both Tori and their parents. Results

for the five subscales of (a) sociability, (b) emotionality, (c) activity level, (d) attention span, and (e) soothability demonstrated that parents and Tori were even on their assessment of the children's sociability. Tori scored four of the children as more sociable than did the parents, and four of the parents scored their child more sociable than did Tori. For one child, the parents and Tori had the same score. Six of nine parents, however, perceived their children as more emotional and likely to get upset (emotionality) than did Tori, and six of nine also thought their child had a longer attention span (attention span persistence) than did Tori. Five of nine parents thought their child had a higher activity level (Activity) than did Tori, and five of nine parents also thought their child was more easily soothed (soothability) than Tori assessed them.

Tori perceived the children in her classroom as less emotional and as having a shorter attention span than did their parents. Tori also believed the children to be slightly less active and able to be soothed than their parents perceived them to be. It is interesting to note that even though Tori scored most of her children as less emotional than their parents did, she scored MA as very emotional, giving her a score of 25 out of 25 and MA's parents gave her a score of 12, less than half what Tori had scored her. On the soothability scale, Tori scored MA a 10 while the parent scored her as 19, meaning her parents perceived her as more easily soothed.

Tori scored ER, another child who presented with fussing and crying more than others, 22 out of 25 on the emotionality scale and the parent scored her 23 out of 25, a very similar score. On soothability, Tori scored ER an 11, slightly above MA's score, while ER's parent scored ER a 16, which translates to more easily soothed.

Looking at the classroom from a systems perspective and the potential impact of children's temperaments on Tori, MA challenged Tori with her continuous crying to the point that Tori's practices and routines began to unravel and become more inconsistent. Tori was a very consistent teacher/caregiver and when she continuously tried new strategies and practices to calm MA and they did not work, it was distressing to not only Tori but the whole class as well. As Tori began to become frustrated with the crying, she did continue to try new strategies but on Thursday as noted earlier, she said 'I quit, I quit,' and asked the assistant teacher to switch with her for diaper changing so Tori could go and sit down with MA and calm her once again. Additionally, the quality of play for the children began to suffer as Tori became less available and less consistent with them. Children began to demonstrate strategies to manage their distress, what may be called stress behaviors such as crawling under a table, sitting and holding a pillow case, putting the pillow case over their head, and social referencing again and again to see if Tori could do anything about MA's crying. It appeared to be an emotional crisis in the classroom.

Trustworthiness

Trustworthiness on this teacher's practices was also assessed by scoring her on the Caregiver Interaction Scale, which is used to assess teacher quality of caregiving. An assistant researcher number one assessed Tori's practices two times on Wednesday the week the study was conducted at her classroom. Results of the two scales reveal that Tori received an overall score of 3.59 out of 4 for her responsiveness to children and their needs. She received a score of 3.05 on the sensitivity subscale. CIS items Tori scored particularly high on both times were item 6, 'Seems to enjoy the children,' item 11,

'Seems enthusiastic about the children's activities and efforts,' item 14, 'Pays positive attention to the children as individuals,' item 16, 'Talks to children on a level they can understand,' and item 25, 'When talking to children kneels, bends, or sits at their level to establish better eye contact.' Tori received a score of 4 on each of the above items both times she was assessed. It again appears that the Caregiver Interaction Scale and the observation data are correlated well and that there is agreement between them.

Summary

There were five themes identified through data analysis of Tori's practices. They were (a) the teacher and children engaged in a great variety of activities and shared experiences that appeared to build emotional connections and relationships between them, (b) the teacher engaged in a steady stream of reciprocal verbal/ nonverbal communication during interactions with the children, (c) the teacher was one with the rug, spending an extraordinary amount of time down on the children's level, giving eye contact, smiling, and playing with the children, (d) the teacher was both physically and emotionally present and responsive to the needs of the children, and (e) the teacher used developmentally appropriate discipline practices with the children.

The analysis of Tori's teaching practices indicates she appears to spend considerable time each day on the level of the children, sitting either on the floor or on the carpet and engaging them in songs, rhymes, ABC's, or other play. She appears to use plenty of nonverbal as well as verbal communication with the children, and is quick to take action when a child needs or cries for something, being responsive to their needs. Her practice also includes a variety of discipline measures, yet she does not use time out

in her classroom and does not appear to need it. Tori's verbal and nonverbal communication is mentioned by at least one parent as a strength of this teacher. She herself in her interview speaks about how she talks to the children 'all the time.' MA presented Tori with a tremendous challenge to her practice, yet this demonstrated how Tori and the children got through an emotional challenge to the whole classroom. Chapter V will discuss teacher practices that may be described as supportive of growth promoting relationships with toddlers and quality practices used to calm down children who were upset.

Case Three: Frangela

Contextual Information

Lead teacher number three has an Associates Degree in Early Childhood Education and has worked with young children for 6 years. Frangela has worked with preschoolers for five and a half years and now with the toddlers in this classroom for 6 months. She has worked with the assistant teacher in this room for 6 months as the assistant teacher was here before her. They use primary caregivers in this classroom, which means these teachers share diaper changing, with each having five children to change, and for breaking up the group for a walk or an activity. When the researcher asked if use of primary caregivers is related to parent communication Frangela said no, she did the parent communication as the lead teacher. Frangela does not have another job outside child care, yet is interested in returning to school for a bachelor's degree. The assistant teacher number two has been working in this classroom longer than the lead teacher. The assistant teacher's interactions are considered supplementary and were

recorded only when interacting with the lead teacher alone or with the lead teacher and children together.

There were eight children in this toddler room aged 15 to 24 months, with five Caucasian, one African American, one Indian, and one identified as other race. There were no children transitioning out of the room during the study, yet two new children were transitioning into the classroom the Monday after the study ended. There were no children with disabilities in this room and for children enrolling at this child care center when they were six weeks of age this was their second classroom. These eight one to two-year-old children were observed along with their teacher as they interacted during the week of the study. Parents involved in the study were parents of the toddlers in this particular classroom. Being a parent participant meant filling out the temperament scale on their child, giving permission for their child to be observed, and for two parents it also meant participating in an interview with the researcher.

The Setting

Child care center number three is a large, for profit, child care center, part of a national franchise, located in a hospital setting in central North Carolina with a five-star license. The center serves 238 children and their families and is open from 6:00 a.m. to 6:15 p.m. daily. The center's staff provides care for children aged six weeks to six years and after school care with 52 teachers and 16 classrooms. There were eight children in the toddler room during the study, whose weekly care cost parents \$165, while care for two-year-olds was \$150 and for preschoolers \$140.

The toddler room is shaped like a wedge or a piece of pie. It is also a double room with dividers down the middle, a very narrow point on one end (about six feet wide) then 27 feet long and 15 feet across the far end of the pie shape. At the bigger, far end of the room (15 foot area) was a gate opening to the other side and out to the playground with large windows for viewing the playground and letting in natural light. On one side of the double room were five younger children with one teacher (T3) and on the side for the research study, there were eight children with two teachers. The divider down the middle was a very large shelf with cabinets underneath and lattice work overhead, hanging from the ceiling, where teachers could put their papers, keys, or lunch. It also provided a sense of privacy or separateness from the class on the other side.

The room was painted bright blue and had outline shapes of children's bodies hanging on the walls and many examples of children's artwork and papers for view. There were also ABC's on the walls and many more pictures of families. There was a soft climber in the center of the room, surrounded by a beige rug and then shelves defining center spaces. Just inside the entrance of the room there was a quiet space which was protected by a shelf that was on its side to provide a short amount of overhead coverage. Inside there were pillows and books for children. Cubbies were overhead and high up so that only parents or teachers could reach them. Below the cubbies were pictures of families from many cultures and a basket of puppets. There was a shelf with trucks and blocks, a kitchen center area with pots and a couple of dishes, and a large basket of soft stuffed animals and dress up clothes, while a soft couch and chairs completed the area. There was an art area with more manipulatives and puzzles next to it

and developmentally appropriate sized tables and chairs nearby for working on projects, as well as eating snacks and lunch. The diaper changing table stuck out from the end of the large shelf in the middle of the room. The teacher, when standing there, could see about half of the room and therefore could not see some of the children. The shape of the room and the angles were disorienting at first, until the researcher adapted to it.

Outside were two connected playgrounds with a fence between them. One had a number of small climbers, slides, push toys, balls, rocker toys, and a gingerbread house, all of which was covered with a wooden lattice overhead that had screening across it to provide some shade. Underneath was a rubberized ground surface that would soften any falls or accidents the children might have. The second playground was a long sand box that was very wide and stretched behind each classroom. There were plenty of dump trucks, shovels, pails, and sand toys. A cement walkway and small fence separated the first and second playgrounds. Children played on the first playground all week and did not use the sand box at all.

Breakfast snack is served at 8:15 to 8:30 a.m. and then is followed by a time of free play. The children are then taken to play at the pod (an indoor play area with soft climbers) or to outside play with water play on Friday. Outside play is followed by an art project and then cleanup for lunch at 11:30 a.m. and nap immediately after lunch.

Communication with parents is through an extensive daily sheet. The first half of 'The Toddler/Two's Daily Report' sheet is for parents to fill out on their child in the morning and the second half is for the staff of the classroom to fill out to report on the child's day. Items for parents to fill out include name, arrival time, telephone where the

parents can be reached, approximate departure time in the afternoon, last diaper change, if their child has had any medication in the last 24 hours, and signature. Items for staff to report about the children's day include what they ate that day and potty/diaper changes, including the time and staff initials. Naps are mentioned next and then a section marked 'Look what I did today' and then a section at the bottom that reads 'Notes to Parents' with plenty of space for teachers to write comments. The last item on the sheet is a place for the parent's signature as they pick up their child at the end of the day. This daily sheet is actually two sheets that have carbon in the middle so parents take home one sheet at the end of the day while the center retains the other sheet for recordkeeping.

As mentioned earlier, Frangela has worked in the toddler room for 6 months and has an Associates Degree in Early Childhood. Her professional development history for the past 3 years reveals multiple workshops and trainings on preschool level curriculum, preschool nutrition, team work, partnering with families, and observation, but did not include any workshops on toddlers and their care or social emotional development. Frangela's associate's degree is from 2000 and so there may be coursework on toddlers included there.

It should be noted that the theme for the week was colors while the research study was being conducted. Each day children were asked to wear a shirt corresponding to the color of the day. Other background information includes the resignation of the director of this child care center following the week of the study. The director was gone by the time the researcher returned to provide training for the teachers at this center. They were actively looking for a new director when the training was held.

Themes

Following data analysis of observations, parent and teacher interviews, demographic data sheets, professional development history, and child temperament scales four themes emerged that are indicative of Frangela's practices with the children. They are (a) the teacher used a slow and easy pace of verbal/non-verbal communication with the children that invited response, (b) the teacher warmly engaged in a variety of developmentally appropriate activities with the children, (c) the teacher most often provided responsive and individualized care of the children, particularly during routines such as diapering, and (d) the teacher used discipline practices with the children that were a mix of responding and at times ignoring. Themes will be discussed in sequence and supported with evidence from data sources. Also, general data from a temperamental assessment of each child by both Frangela and the child's parents will be shared.

Frangela is called T1 throughout data sources while the assistant teacher is called T2. Children are noted by their first initial or first and last initial if more than one child has the same first initial.

The teacher used a slow and easy pace of verbal/non-verbal communication with the children that invited response. Frangela is a teacher who appears to take her time while interacting with children and is not in a rush to proceed to the next activity. Due to the slow and easy pace of Frangela's interactions, there appears to be plenty of time for child responses. It is Tuesday morning at 8:40 a.m. and Frangela is preparing snack with her back to the children.

Now T1 brings snack to table and she sits down with the children. Snack is served on paper towels. T1 sits and talks and smiles and gives eye contact while children eat. K, mommy? T1 at work. K points to cracker. T1 cracker. K vocalizes. T1 Can you put your cheese on the napkin? Cheese! K napkin. T1 yes, put it on napkin, good. K juice. T1 gets and serves the juice to children. T1 says thank you to each child as she serves it to them. (Observation, Tuesday)

Reciprocity during interactions with the children is a common practice with Frangela. It is 9:17 a.m. Tuesday morning and Frangela is changing Z's diaper.

T1 - carries Z to changing table and holds him as she wipes it off from last child. T1 talks to Z about finding shoes. Oh N (T2) found it. T1 puts on Z's socks and shoes. T1 takes her time putting on shoes and tying them. Z sings. T1 - you singing? T1 starts to sing 'twinkle, twinkle' to Z as puts on shoes while giving eye contact and smiling. Z claps when T1 finishes singing. T1 gloves! As she gets out gloves. T1 to Z, Oh your diaper is wet, wet, wet as she pulls it off. T1 - I know you'll feel better when we get it off. Z vocalizes. T1 - what are you telling me? T1 I see your belly. T1 - points to Z's shirt and says you have a lion, a madagascar and zoo animals. Z vocalizes and touches T1's necklace. T1 holding her necklace says it's a shoe, a flip flop, because I love flip flops. T1 picks up Z and then shows him her shoes, flip flops to him as she takes him to wash hands. T1 washes Z's hands and face and dries. It is 9:24 a.m. and T1 puts Z down now. (Observation, Tuesday)

Dancing and singing are popular activities of toddlers and this group of children enjoyed these activities very much. It is Wednesday at 10:42 a.m.

T1 puts on wolf song. T1 and children do wolf song and dance. T1 and children do hand motions and sing. T1 bends over and gives eye contact and leads group of seven children. Telephone rings and T1 goes to answer. Children look for T1. T1 comes back and puts on another song. CR fusses. B gets picked up by T1 and she feels his forehead. T1 then leads the children in song and dance and freeze movements. At freeze points T1 says OOP! Children dance and squeal! Music continues and they dance and squeal and freeze. (Observation, Wednesday)

Another example is when T1 takes CR for a diaper change. It is Tuesday at 11:00 a.m.

T1 takes CR for diaper change and talks to her about it and gives eye contact and smiles, sings 'Apples and Bananas' song to CR. CR giggles. T1 to CR, you hear me whistling? CR looks. T1 whistles. CR vocalizes and waves arms. CR vocalizes and points to baby on wall. T1 picks up CR to wash her hands for her. (Observation, Tuesday)

Data analysis of interviews reveals how Frangela and parent one perceive Frangela's practices related to verbal and nonverbal communication with the children. Frangela initially says her comfort level is working with four-year-olds and that it was a risk for her to come and work with toddlers, yet she is glad she did. She reports:

We plan a lot of activities like with the finger plays and singing. In circle time, [coughs]. Excuse me. Socially, when we're sitting down I'll say, you know so and so, look what he has. And maybe can you give the book to C. You know, try and do the social and passing along toys, because everything is mine, mine, mine. Just trying to get that social interaction between them 'cause a lot of it is parallel play and so um. (Teacher Interview, Frangela)

Parent one speaks in the interview:

But tangibly, um, sh-she supports learning by one like a project this week, they had to wear a certain color of clothing every day and their. She left us a note last week just saying 'parents please um dress your child in this color on each day because we're learning our colors. So, I think I look at that as a tangible way of supporting the child's learning. Because um, that's something that I can see an-and my daughter can actually put on. . . Um, other ways I've seen other tangible ways, just with books. I've seen the child, like the children bring a book to the teacher and the teacher will immediately read the book to the child. . . They constantly talk to them. And I that that is kind of an intangible way that they support learning or the main teacher supports learning. (Parent Interview, Parent One)

Parent One goes on to talk about nonverbal communication used in the classroom in the form of sign language.

. . . well she gave us some notes the other time, meaning the parents. And it had ‘help your child learn these words or these movements to encourage um language or some kind of communication. And they say you’ll receive, get less tears from your child if you help your child with these. So they had little um non, non-verbal communication signs that they can use. I thought that was interesting because I really. Because it is really hard when you know that your child doesn’t really know the language yet. And you’re trying to help them communicate with you other than screaming or tears or um getting frustrated when something doesn’t work. So um, I thought that was very neat to: Researcher: sign language that you’re talking about? Parent one: right, sign language. There was different sign language from every, you know it included everything from hungry to cereal. Um, they had, you know a little sign for dirty, for diaper. So different things that I didn’t. And help um which I’m trying to help my child understand you need to say the word help instead of moanin’ and groanin’ or screaming. (Parent Interview, Parent One)

The teacher warmly engaged in a variety of developmentally appropriate activities with the children. Frangela used outdoor time to sing and engage children with lots of smiling and laughing. It is Tuesday and they are on the playground at 9:53 a.m. and L and his dad have just arrived.

T1 - L! and she extends arms. L runs to her and T1 and L hug. T1 are you wearing orange? Do you have a monkey on your shirt? L vocalizes, says orange. T1 yes orange! L points. T1 yes, see the babies. T1 takes L’s hand and he waves to the babies coming through the playground. T1 sits on low cushion seat (proximity to children) and takes R’s arms and does ‘row, row, row your boat,’ swinging back and forth, lots of eye contact and smiles. Then bumble bee song and T1 and R continue to have eye contact and vocalize. Now T1 does it with young one year old, the bumble bee song, smiles, proximity, eye contact. R comes over and joins in and now others, six children in all with T1 doing the song. T1 - proximity and smiles, and eye contact as they sing ‘if you are happy and you know it stomp your feet.’

Frangela and the children continue to sing and engage in rhymes and finger plays.

Now T1 to R and then to L, What song? What song? What song? What do you want to sing? T1 asks with eye contact and smiles and L says Monkey song. T1 continues to sing from her seat on cushion and they (7 children) around her, high engagement. Children say more, more! T1 What's another song R? (T3 from young ones room). They do the 'itsy bitsy spider song.' Yeah!!! When finished. T1 lots of eye contact during song. Next, 'twinkle, twinkle' song. L bumble bee, bumble bee song. T1 – Ok. And starts to sing 'bumble bee' with great emphasis and eight children all around her jump up and down and squeal and clap. Children, more!! (Observation, Tuesday)

It is Friday and water play is the activity for most of the morning. The children and Frangela are outside under the sprinkler. It is 10:10 a.m.

Children play in puddles. T1 at door with T3, with her back to the children. T1 now comes and plays in puddle with four children. T1, does this remind you of the beach L? L shark! T1 you saw a shark at the beach? T1 splish, splash, splish, splash. T1 is it cold? Children say water. T1 cold water it is! T1 and CA, Z K, and L stamp feet in puddle. T1 you going to clean the bus to L. T1 to L yuk!! Play in water, there you go. T1 waves arms talks to K. T1 lifts CA on rocking toy and turns her the other way and then picks her up and kisses her. CR drinks water from faucet, she has put in a three sided block (not sure of meaning). R plays in water. K runs around and yells. G down on ground and L and Z also and playing in puddle. CA walks around. B walks around watches. T1 bends over and helps children at sprinkler. T1 goes to puddle and stomps feet in it with children. (Observation, Friday)

On Tuesday at 10:20 a.m. Frangela and the children are finger painting and enjoying themselves.

T1 Ok this is going to be fun. T1 to L what color shirt do you have on? L orange. K orange. T1 we're going to make a sea horse like under the sea. T2 pours paints on papers and children finger paint. T1 puts tape on papers to hold to table. T1 very good! T1 in response to K's vocalization. How does it feel? Is it cold and squishy? T2 takes up G's paper- all finished? T1 want to paint some more? We have more paper. T1 hang on G le me get this up (her paper). T1 gets up to cut

more paper. T1 puts down a large paper for G and K, here can you share? T1 puts down tape on the paper. G vocalizes. T1 can you say more tape please? G more! T1 very good. T1 puts very large paper on whole table and all children at table one paint on same paper. G vocalizes and raises arms and shreeks! T1 and K and G talk about how it feels (the paint). T1 looks as she pats her hand on paper. Now they all pat hands to each other and smile. They feel the paint. (Observation, Tuesday)

It is a very hot day on Wednesday and Frangela and the children are outside at 9:55 a.m. Frangela has a water bottle to spray the children to provide a bit of relief from the heat.

T1 at door to outside. T1 takes off over shirt. T1 has spray bottle, sits on table and says Ok stand back. See your belly? Children pick up their shirts and T1 squirts their bellies. T1 - boop, boop. T1 want me to squirt your belly? T1 woop, woop. T1 lifts CA into her lap. T1 want your belly? Children lift shirts for spray of water on belly. Children squeal and love it. T1 sprays and says yeah!! Children extend arms and want more. T1 what is this? L water. T1 you want water in bucket? She squirts water in bucket. T1 asks T3 for tissue and T3 goes and gets it. T1 sprays the air and says can you feel the water? T1 Can you feel it? Can you? (Observation, Wednesday)

When parent two is asked about how the teacher encourages or supports child learning, she notes how Frangela leads the children in a number of activities.

Um, well, I know they r-read to the students. And they play music and sing songs. They use the toys as learning. Ah, I don't know what the correct term is but they use toys to encourage the day's lesson. And they go outside. And they do art projects, which is impressive for toddlers [laughs] to be able to do anything art-wise. Um, it those are the main things that I've seen in the classroom. And they do, I know about the ah music because they told me about the songs that she loves or er hum the art projects she may have had a particular interest in and they send home the art projects so I know what she's been doing um that way (Parent One, Interview).

The teacher most often provided responsive and individualized care of the children, particularly during routines such as diapering. Most of the time Frangela's practice appears to be very respectful and thoughtful. Diaper changing is a time for individualized attention and an opportunity for children to connect and refuel themselves with the teacher's support and engagement. It is 9:15 a.m. on Tuesday and T1 is ready to change CR's diaper.

T1 Can you climb up CR? CR comes and climbs up on diaper changing table. T1 you are a wiggle worm, smiles and gives eye contact. CR squeals! T1 ties CR's shoe. T1 and CR giggle and smile at each other and talk. T1 let's get rid of your dirty diaper, shew. Throws it out. T1 and CR talk as T1 picks CR up, pulls up pants, lots of eye contact and smiling and this teacher T1 cocks her head to one side, moves her head to catch the eyes and give individual attention and talk. T1 and CR talk about mommy and daddy at work after CR asks and then other talk. (Observation, Tuesday)

On Thursday CA and her mom arrive. CA is the youngest child in this room and recently transitioned into this room. It is 9:26 a.m. and they have just arrived for the morning.

CA and mom come in door and mom says we hardly have anything green (color of the day) to T1. T1 speaks to CA and mom. CA's mom passes CA to T1. CA cries and mom goes out the door. T1 hugs and holds and now stoops down a minute as CR starts to fuss a bit also (proximity). (Observation, Thursday)

In her interview Frangela speaks about the importance of comforting not only the child but the parent as well when a new child transitions into the classroom.

So, there again it goes back to the um comforting of the parent and the child. Um, she's done really good. What we done is before they even come in the room, let them come in a couple of days, kind of see the routine, the parent and the child.

We'll let them come in. Um, see what we have to offer. Where their belongings will be. So we, we do um let them come in a couple of hours and let them spend time. The mornings are always rough, um, we try to comfort you know and talk to the parents as much as we possibly can. 'Cause we h-it's a new territory for them . . . I have a packet um, that I'll have for the two children that will come next week that I've written up of just reminders that we need. (Teacher Interview, Frangela)

Parent two speaks about how Frangela calms down children who are upset:

. . . she'll pick up the child and she'll talk calmly to the child and um try and just soothe the child. Try and distract them from whatever it was that may have caused it whether it was a parent leaving or um, another child having hit 'em. A lot of times at this age distraction is your best friend. 'Oh let's play a song, sing a song, or play some music.' 'Oh let's look at this toy over here.' And um, distract the child from whatever was that um caused them to be upset in the first place..... But she does seem to pick them up, talk gently to them, those kinds of things and very positive and upbeat tone of voice. (Parent Interview, Parent Two)

Parent One also confirms that Frangela uses comforting practices when children are upset or crying, especially when they arrive in the morning.

The teacher will grab and comfort her and ah, if, if they are having snack and my child won't go sit down and have snack. The teacher will then encourage her. Do you want something to eat? Well, here's something to eat, and maybe even give her a spoonful of her food or yogurt or something like that. To go ahead and help her the, the morning routine... Instead of focusing on the separation anxiety, I think the way the teacher refocuses her attention and says OK do you want to go do this? We're going to do this next. Or we're going to . . . (Parent Interview, Parent One)

On Friday at 11:03 a.m. they have finished water play and some children appear tired. They are just back inside and T1 tries to transition children over to the pillow, puppet, and book area but CR has other ideas and Frangela follows her lead.

T1 takes Z and now CR to read books over in soft cozy book area. T1 come on L. L comes. B is there too. T1 cleans up room. T1 come on CA. CA does not move sits and watches. T1 moves large teacher chair to in front of shelving. T1 gives children a puppet and books. CR sits in book area and dances as she still can hear the music. T1 brings a few toys/books to children in book/ soft pillow area. T1 picks up CA from seat at table and takes to soft area and sits her down. CA fusses. T1 sings a few phrases. T1 come on L. L is up and away. T1 want to read a book with B? T1 to CR, who is up and away from soft area, come on CR. T1 sits down (proximity) in soft area and CR continues to be up and dancing. T1 OK we can dance if we want (follows child lead). T1 picks up B and dances him around and she comes over to mirror area. Children follow. T1 puts on new CD. All five children are there with her. They, T1 and five children sing and dance to 'wheels on the bus.' T1 does hand motions and sings and children follow especially L, he watches her closely. (Observation, Friday)

There are times, however, when Frangela's practice is not as responsive. It is Tuesday morning and Frangela decides that it is time to go outside and gives no notice to either the children or T2. It is 9:24 a.m.

T1 puts Z down now (from diapering him). T1 all right are we ready to go outside? No response from children. T1 are we ready? T2 is doing sign language with children, yellow (she signs)! T2 helps each child make sign of yellow. T1 all right, lets go, go outside (louder). Children go to gate. (Observation, Tuesday)

One practice that Frangela uses routinely is to announce that it is time to go inside and then go to the door right away with children expected to follow. Another practice used with frequency is to turn her back to the children while diapering, doing paperwork, writing a note, eating a snack, or other things. It is 9:33 a.m. on Thursday and T1 and five children are present. T1 is changing K's diaper when a workman comes in.

T1 now changes K's diaper. Workman comes in. T1 to K who is on the diaper changing table, he's working on the room, he's checking the air to K (no words to other children). L stands in the corner, looks at T1 who is at diaper changing table so her back is to some of the children including L. L frowns, looks worried and

watches workman. L looks again at T1 (social referencing). T1 still with back to children. T1 washes K's hands. L sits down on carpet. CA, CR, Z and L all watch the workman and stay near T1. Workman leaves. K waves as workman leaves. L says bye, bye after the door is shut. K all done! T1 what is all done? T1's back continues to be to the children. T1 does paper work and looks over fence/gate to T3. L goes and stays near T1 as another workman now comes in. T1 continues to have back to the children while she does some paper work, recording of diaper changes etc on the shelf area. Workman leaves. T1 still does paper work.
(Observation, Thursday)

A practice called 'redistribution of children' is used at this child care center. This is a process of sending children to another classroom when the child's current class is out of ratio or when teachers are in need of a break or lunch. This process took place each day of the week of the study and what usually occurred was for T2 and a couple of children to be sent next door to the young ones' room on the other side of the gate for lunch break so the young ones' teacher can go to lunch. The children have been going over there along with T2 and so with a teacher they knew. Some children appeared to like going over to the other side of the gate and visiting along with T2, and other children appeared to cry and not want to go.

The further extension of this policy and procedure of redistribution of children occurs when children are sent down the hall to other classrooms when the young ones' room (on other side of gate) is full and cannot take the overflow from the research study classroom. They are sent without their teacher and may or may not know anyone in the class to which they are sent. An example is on Thursday starting at 9:10 a.m. T2 has still not arrived for the day and they are out of ratio, so Frangela has to keep sending children over to T3, and then T3 on the other side of the gate sends them down the hall.

T1 speaks to T3 over the gate 'Please tell her to send someone' (the director as out of ratio). T1 CR want to go see Ms. R? T1 let's CR through the gate, others run through also. T3 takes G and sends back CR. T3 sends back CR and now CR cries. T1 now has five children as R and G are on other side with T3 (redistribution of children). T1 had seven children and that is why sent some, two children over. T1 cleans CR diaper. T1 - I don't like to redistribute our friends.' (Observation, Thursday)

They are fine now until 9:24 a.m. when CA and her mom arrive.

T1 to T3 who do you want me to send? T3 send B. T1 - picks up B and passes him over gate (no words to B). T1 says to me, I don't like redistribution of our children. (Observation, Thursday)

It is now 9:40 a.m. on Thursday and Frangela and five children get ready to go to the soft climbers in the hallway. The researcher notices on the way out of the classroom that G is coming back into the other side of the room crying and crying with a teacher the researcher does not recognize. The teacher brings G out into the hallway where Frangela and the children are at the soft climbers and speaks.

The teacher to T1, can I have a trade (for G)? T1 says Z want to go and then does not wait for response but the other teacher who just brought G back takes Z by the hand and leads him down hall to her room. Z looks up as he passes his own classroom and then when the other teacher gets him to her room he (Z) sits down at door and cries and cries. The teacher turns him around and brings him back crying to T1 and says ' can I have different one?' T1 gives L this time to go with seemingly unfamiliar adult. This time the teacher picks up L and carries him to her room and goes in the door. (Observation, Thursday)

Next T2 arrives at 9:40 a.m. and so Frangela takes a break.

At 9:50 a.m. Frangela returns from break and says to T2 I will go get the other children and so walks by T2 and children and goes to get other three children. The researcher notices that it takes six minutes for T1 to return with the children. T1

says to T2 they were everywhere! (loud and with emphasis) as she comes down the hall with L, R, and B. As T1 walks by the researcher, the researcher asks 'did you have to go find them?' T1 yes! Some teachers don't like certain children. T1 it's hard on the children. It's hard on us, I don't like redistributing children. (Observation, Thursday)

In Frangela's interview she speaks about redistribution of children.

Um, as far as the transitioning now, we do have children that go in and out. Um, when we have to redistribute. That transition is a little harder. Because some children just don't want to leave and it would be so much easier if staff could come into the room. 'Cause I don't like sending 'em. 'Cause I know that they don't want to go. So that transition is a little harder. Um, and I don't really know how to prepare so much, because sometimes they're like, just send them. And you don't have time to prepare the diapers and say it's OK. You're going to come back. It's pretty rushed sometimes. So, that transitioning is hard. (Teacher Interview, Frangela)

The teacher used discipline practices with the children that were a mix of responding and at times ignoring. Frangela uses a variety of practices to discipline the children including redirection, ignoring or no response, explaining, time out, speaking down on their level, distraction, and asking them to say sorry. It is Wednesday at 10:01 a.m. and they are on the playground when

G bites B. T1 takes G and B by the hand and says biting hurts, no biting, I don't like that G. T1 asks G to give a hug and say sorry and moves over to B. T1 then asks T3 to handle B. T1 then says to G you're going to sit with me for a bit, biting hurts, takes her face and moves it so it looks up in T1's eyes. T1 and G sit for a minute. Meanwhile, T3 took B and is writing it up. T1 now gets up. (Observation, Wednesday)

On another occasion Frangela appears to do little or nothing to address issues with the children. It is Tuesday at 9:15 a.m.

R fusses as Z takes some of his kitchen stuff (materials). In response Frangela just goes and picks up Z as time for his diaper and no comment. (Observation, Tuesday)

On Thursday at 9:45 a.m. Frangela and the children are outside and she is setting up the sprinkler for water play.

T1 hooks up hose to sprinkler. R pulls on CR's, push toy and CR screams, No! No! and R continues to pull. T1 and the sub (relief person) are talking and see this but do not stop talking but continue. CR continues to scream loudly No! No! No! as R pulls on her push toy and when T1 and relief person are done talking T1 goes and says we're not going to play with this right now, we're going to do water play and she takes the push toy away. CR screams more! No response from anyone. T1 adjusts the hose and sprayer again. (Observation, Thursday)

At other times Frangela gets down on children's level and explains and redirects. It is Tuesday and they are outside at 9:45 a.m.

K fusses (M has taken her bike). T1 you got off it to K and now M going to have a ride on it. T1 bends down as she says this and gives eye contact. R says here you can have this bike and K takes it. (Observation, Tuesday)

Providing explanations to children when they both want the same toy is an important practice of toddler teachers. It is Thursday at 9:05 a.m. and R and CR get in a fuss. However, follow up is equally important a practice.

R and CR get in a fuss. CR fusses. T1 goes and gets down on their level (proximity) and explains they both can use it (toy). Six children in here now. R and B get in a fuss. G hits R and T1 does not notice. R cries and says No! No! to G. B cries as G then grabs him by shirt and drags him one way. T1 intervenes and says G!!! takes B in arms and hugs. B cries. T1 you just don't feel good, she says and hugs and puts him down. T1 we'll all play with it. (Observation, Thursday)

During the teacher interview Frangela speaks about how discipline is the hardest thing for her.

That is the hardest thing! No matter what age I found. Um the discipline part. With the toddlers, again like I said everything is theirs. It's mine, mine, mine! Um, and at the beginning of the year we had a lot of bite problems which I was not used to, being with older children. So, um, I kind of used the same methods that I used with the older ones. Um, use your words. Even though their words aren't as developed as the older children. Um, I'll tell 'em you know that hurts or maybe we both can sit down and play. (Teacher Interview, Frangela)

Parent two notes how Frangela settles difficulties between the children.

Um, once again in the little bit that I've seen is that she just tries to once again distract both children instead of, if they're fighting, both fighting over a toy, take the toy out of the picture and get each child directed in a totally different ah direction. Not to be redundant. That way the children don't focus on what it was that they were having a disagreement about. Again, because at this age there's not much reasoning with them [chuckles]. (Parent Interview, Parent Two)

Temperament Assessment of the Children

Again, all children had their temperaments assessed with the Colorado Childhood Temperament Inventory (Rowe & Plomin, 1977) by both Frangela and their parents. Results for the five subscales of (a) sociability, (b) emotionality, (c) activity level, (d) attention span, and (e) soothability demonstrated that of the three case studies, Frangela's scores were the most dissimilar or conflicting of the parents. All eight parents in Frangela's classroom thought their child had a higher activity level than did Frangela, and seven of eight parents perceived their child to be more sociable and to have a longer attention span than did Frangela. Frangela and the parents' scores were more similar on the subscales of emotionality and soothability. The data reveal that Frangela thought that

four of eight children were more emotional than their parents perceived them to be, and five of eight parents scored their child as more easily soothed than Frangela perceived them to be.

There were certain children in this classroom that appeared to be well regulated and more easily dealt with the stress of redistribution. For example, R, a child from India, arrived each morning and within minutes was settled in and eating a breakfast snack. He would certainly cry when hit, as noted earlier when hit by G, yet he was able to say “No! No!” and take up for himself in such situations. He also appeared to love the water play and art activities that were provided. Each day when it came time for redistribution he would want to go to the other side of the gate to T3’s room and he would fuss if he did not get to go over. On Thursday, when the children were sent down the hall he did not appear to be upset by it and returned and continued to play well. However, L (another child sent to redistribution) bit another child within minutes of returning to the classroom, something he had not done before.

Looking at this classroom from a systems perspective, the children and Frangela appeared to have even temperaments that were a good match with each other. There were times when a child would bite or hit and be disciplined for it and yet there did not appear to be any out-of-bounds behaviors that happened routinely or crying that went on incessantly. Frangela appeared to have an easy temperament and her calm and slow pace of interaction was a good fit with the children. However, one child (R) appeared to have an easy temperament and be well regulated and he actually may have needed more stimulation and activity than the rest of the children. He was the child who did not mind

going to re-distribution and would cry if he did not get to go. His temperament and sense of himself appeared to be much more mature than his age and yet he did not cause any discipline challenges to get more excitement or stimulation from Frangela other than wanting to go to re-distribution. One influence R had on Frangela's practices is that when she needed to find something or get something (book) she would ask R as she knew he could find it, such as a lost shoe, or would go get it, such as a book from the book area, so they might read. This child was very capable and responded to Frangela's requests and therefore she influenced him and he impacted her through these interactions.

Trustworthiness

Trustworthiness on this teacher's practices was also assessed by scoring her on the Caregiver Interaction Scale, used to assess teacher quality of care giving. The assistant researcher number two assessed Frangela's practices two times on Wednesday of the week the study was conducted at her classroom. Results of the two scales reveal that Frangela received an overall score of 3.23 for her responsiveness to the children and their needs. Frangela received a score of 2.8 out of 4 on the sensitivity subscale, meaning her sensitivity to the children was slightly less than 'quite a bit true,' which would have been a 3. One CIS item that Frangela received a high score each time was item one, 'Speaks warmly to the children.' Otherwise, Frangela's scores were inconsistent, with lower scores coming later in the morning demonstrating a possible change in her practice part way through the morning. This was consistent with the observation of her practice of this day.

Summary

There were four themes identified through data analysis of Frangela's practices. They were (a) the teacher used a slow and easy pace of verbal/non-verbal communication with the children that invited response, (b) the teacher warmly engaged in a variety of developmentally appropriate activities with the children, (c) the teacher most often provided responsive and individualized care of the children, particularly during routines such as diapering, and (d) the teacher used discipline practices with the children that were a mix of responding and at times ignoring.

The analysis of Frangela's teaching practices indicates she appears to engage children in songs, rhymes, finger plays, and other activities. She appears to use an abundance of nonverbal as well as verbal communication with the children and is generally responsive when a child needs or cries for something. Her practice also includes a variety of discipline practices such as redirection, explaining, speaking to children on their level, ignoring, and sit out or time out for behavior problems such as biting. She appears to interact at a slower pace which allows more response time for toddlers and encourages reciprocity in interactions. She is concerned about the practice of redistribution that occurs at her center, which may present a very real challenge to young children's ability to trust their caregivers and therefore develop self-regulation skills. Chapter V will discuss practices that may be described as supportive of growth promoting relationships with toddlers and quality practices used to calm down children who were upset.

Across Case Analysis

The next level of data analysis was to compare the three cases. A table providing basic demographic data is presented as an illustration of the teachers in each classroom (see Table 5).

Table 5

Across Case Analysis: Lead Teachers' Demographic Data

	Rochelle	Tori	Frangela
Age	31	28	27
Years Working With Toddlers	1 year	7 years	6 months
Years Working in this Room	6 months	7 years	6 months
Education Level	High School	High School	EC Associate's Degree
Use of Primary Caregivers	No	No	Yes

Table 5 reveals that the three teachers were similar in age, and two of the teachers, Rochelle and Tori, had high school educations while Frangela had an early childhood associate's degree. Both Rochelle and Frangela had worked in the toddler classroom for 6 months while Tori had been in the same classroom for 7 years. Frangela was the only teacher who used primary caregivers in her classroom, which meant that she

and the assistant teacher would divide the children for changing diapers and going on walks.

The following table reports the numbers, ages and cultures of the children in each classroom.

Table 6

Across Case Analysis: Children's Demographic Data

	Rochelle's Classroom	Tori's Classroom	Frangela's Classroom
Ages of Children	18-24 months	14-24 months	15-24 months
Number of Children Currently in Room	9	9	8
Number of Classroom for Children	4th	4th	2nd
Culture of the Children	8 Caucasian 1 Latino	4 Caucasian 4 African American 1 Other	5 Caucasian 1 African American 1 Indian 1 Asian

The children in each classroom were similar in ages, all 14-24 months old, and there were either eight or nine children in each classroom at the time of the study. Additionally, for children who enrolled in each of these centers when they were six weeks of age it was their fourth classroom for children in Rochelle and Tori's classrooms. For children in Frangela's room enrolling at six weeks of age, it was their

second classroom. The cultures listed of the children in each classroom demonstrate the diversity present in each room. Another item that needs mentioning is that Tori and Frangela's classrooms were one half of a larger split room that was divided down the middle by shelving and book cases with gates in two places for children, teachers, and families to enter and exit. Rochelle had a standard rectangular classroom with two exit doors and windows on two sides.

Themes

Data analysis revealed three similar themes among the three teachers: (a) The teachers communicated in very individual ways during interactions with the children using both verbal and non-verbal communication, (b) the teachers used a variety of disciplining practices with the children, and (c) the teachers uniquely engaged in activities with the children. There were also differences in themes discovered through data analysis. Two teachers had (d) the teachers used responsive, individualized care of the children as a common theme. One teacher had (e) the teacher is one with the rug and spent a large amounts of time on the children's level and another teacher had (f) the teacher was inconsistent in her physical and emotional presence, supervision of children and sensitivity to children's needs as a theme of her practice. The following table provides an illustration of similarities and differences in themes revealed through data analysis (see Table 7).

The teachers communicated in very individual ways during interactions with children using both verbal and non-verbal communication. This theme was common to each of the three teachers. All three of them spoke verbally to the children and used

Table 7*Across Case Analysis of Themes*

Theme Utilized	Rochelle	Tori	Frangela
The Teachers Communicated in Very Individual Ways During Interactions with the Children Using Both Verbal and Non-Verbal Communication	X	X	X
The Teachers Used a Variety of Discipline Practices With Children	X	X	X
The Teachers Uniquely Engaged in Activities With the Children	X	X	X
The Teachers Provided Responsive Individualized Care of the Children		X	X
The Teacher Spent Her Days on the Rug at the Children's Level		X	
The Teacher was Inconsistent in her Presence, Supervision and Care of Children	X		

pointing, smiling, nodding, and other nonverbal communication. While they each used verbal and nonverbal communication, there were differences in the quality and amount of communication that took place with each of them.

Rochelle appeared to speak to the children using both responsive and restrictive language. As noted earlier she had a quiet demeanor and tone of voice, yet she might

comment to the children that they were lazy, or she would speak harshly to them when upset with them for a behavioral issue. Her verbal communication was mainly used when they were at the table for a breakfast snack, art project, or lunch, or when she was moving them from one place to another, such as from the classroom to the outside. At times, she engaged the children in verbal songs and games, such as the body parts game and identifying shapes and colors, as transition activities. Her nonverbal cues consisted of smiling, giving eye contact, and using hand motions when singing songs.

Tori, on the other hand, talked continuously to the children in her classroom and narrated and explained what was happening or going to happen, sang songs to and with them, and played games during transition times and throughout the day. She used the ABC cards to increase the children's vocabulary, she reports, and used plenty of nonverbal communication with the children such as eye contact, pointing, nodding, smiling, smirking, laughing, getting down on the children's level frequently and staying there, holding children in her lap, using the sense of touch, holding children in her arms to dance around with them, and rub their back to take a nap.

Frangela also included both verbal and nonverbal communication in her practice with the children and used a slow pace of interaction which invited response. She also played games, sang songs, used transition activities, and spoke to individual children, one-on-one, with frequency. Frangela also used smiling, eye contact, proximity, touch, and nodding to convey meaning and add to what she was verbalizing.

One special nonverbal communication method that both Tori and Frangela used was called 'looking and listening' by the researcher. This meant that both Tori and

Frangela would stop talking and pause to wait for an answer from the children, inviting response and beyond that, they would be bending over to catch the eyes of the children while they were doing it. Responses by children were verbal and nonverbal when the teachers verbalized to them and then stopped and waited for a response.

The teachers used a variety of discipline practices with the children. This theme was common for each of the three teachers, and the discipline used had many forms. Rochelle used redirection, scolding, criticizing, commands, physically moving children, taking things away, and physically restraining a child in time out. Discipline appeared to be unevenly meted out by Rochelle and different children were treated and disciplined in ways that appeared inconsistent. Discipline was a lesser theme with Tori, but practices appeared to be used consistently. Tori used redirection, scolding, explaining, getting down on the children's level to talk, distraction, and physically removing children.

Frangela said in her interview that discipline was the 'hardest part.' She used redirection, ignoring or little response, explaining, time out, speaking on the children's level, distraction, and saying I'm sorry as her discipline strategies. All three teachers used practices that they felt were appropriate for toddlers.

The teachers uniquely engaged in activities with the children. This theme was common for all three teachers. Rochelle spent time during activities such as breakfast snack, art activities such as colored water, fruit art project, and apple painting engaging with the children. Outside playground time was another time when she gave paint brushes to the children to paint on the outside wall of the building and would chase the children

around or run races with them. These were the times when Rochelle would engage with the children and give them her time and attention.

For Tori, engaging with the children in shared experiences that built relationships was an ongoing activity throughout the day. Tori spent most of her time with the children down on the floor, and therefore was present to, and engaging in, their activities. Some of the activities Tori engaged the children in were finger painting and other art projects, reading, ABC cards, singing songs, rhyming, dancing, ball playing both inside and outside of the classroom, face play while at the swings, riding toys and climbing outdoor equipment while on the playground, and playing whatever the children wanted to play.

Frangela also spent a large portion of each morning engaging the children in activities, although not necessarily down on their level. She spent time doing art projects such as making star fish with yellow paper, glue, and sand, outside water play with the sprinkler and with a squirt gun, singing, dancing, reading, finger plays, and face play while changing diapers. All three teachers knew some of the same songs, rhymes, and dances that toddlers love and used them each day for fun. Two of the three teachers (Tori and Frangela) read to the children and got down on the children's level on the floor or carpet to engage with them during free play time.

The teachers provided responsive, individualized care of children. This was a common theme for Tori and Frangela. Both of these teachers demonstrated how they responded to children's needs and wishes. Both spent time responding to children who were upset or crying with kind words, hugs, holding, and comforting. Both also asked children what they wanted to sing or dance to, and both listened for the children's

answers. Tori and Frangela had plenty of reciprocal conversations with the children where they would stop, look, and listen, and then take the child's idea and initiate an activity based on the child's idea. They both also gave individualized care, knowing which child needed an extra hug or an extra snack at breakfast time, such as when Frangela gave K more and more yogurt one morning as K was hungry. However, an exception to the rule in Tori's class was her care of MA. Tori's practice with MA was at times responsive and other times more directive.

Temperament

All children were assessed with the Colorado Childhood Temperament Inventory (Rowe & Plomin, 1977) by their parents and their teacher. When children's temperaments were examined across the three cases, similarities and differences emerged between the teachers' and parents' perceptions of the children. Within the five subscales of sociability, emotionality, activity level, attention span, and soothability, the majority of parents in all three classrooms felt their child had a longer attention span than did teachers, and also felt their child had a higher activity level than their teachers rated them. This was consistent for these two subscales across the three classrooms.

Other similarities were that both Rochelle and Tori scored about half the children in their class as more sociable than their parents scored them. Frangela scored seven of eight as less sociable than their parents scored them. Additionally, Rochelle and Frangela scored about half the children more emotional than their parents scored them, while Tori scored six of nine children as less emotional than their parents scored them. On the

subscale of soothability, Tori and Frangela scored about half of the children as less able to be soothed than the parents believed of their children. Of the three classrooms, Frangela's scores on the temperament scale were the most dissimilar or conflicting with the parents'. Chapter V will discuss possible reasons for similarities and differences in teacher and parent scores.

Analyzing the three classrooms together reveals some unique differences in temperament of the children and teachers and therefore potential developmental outcomes for the children. Rochelle's temperament and mismatch with JF caused changes to her practice that influenced the whole classroom and all children. When Rochelle was so tuned into JF for behavior she appeared to became emotionally unavailable and impatient with the other children in the room. She might tune out or would physically leave and/or would act roughly with the children in response to apparently minor problems. JF's impact on Rochelle's practice appeared to cause her to be more reactive and insensitive to the children in her classroom.

In Tori's classroom, the first three days of the week during the research study Tori's temperament appeared to be a good fit with the children in the room. She was easily able to act as the 'external regulator' of children's behaviors and emotions as Thompson (2001) says and acted with ease to connect with and encourage children's ideas and play. ER was a child who would fuss at times indicating a more difficult temperament and yet Tori was well able to manage and help her to stay within a stable and calm state. However, Tori's classroom practices were impacted by the temperament and crying of MA in a major way. Tori who had been a consistent and sensitive

teacher/caregiver through the first three days of the week began to be stretched and challenged beyond her abilities. As her practices unraveled so did the quality of the play with the children and her ability to respond in a timely fashion and with sensitivity. This had a quite the impact on the children and their abilities to manage their own level of arousal and self-regulation without the steady support of Tori.

On the other hand, Frangela and the children in her class appeared to have the most similar temperaments and ‘goodness of fit’ between them. Her slow and easy pace meant that the children were not hurried or pushed along but allowed their time to interact with her, each other and with activities. There were no individual children in her classroom that challenged her practices or caused her to shift or change her practice other than the requests of certain children for specific activities. An example, is when Frangela is asking the children to come to the book area to read and CR is wanting to dance and keeps dancing until Frangela says Ok let’s go dance and they do. In these ways by being responsive to children Frangela was connecting to the children and matching their individual needs.

Trustworthiness

Trustworthiness on the teacher’s practices was assessed with the Caregiver Interaction Scale (Arnett, 1989), used to assess teacher quality of caregiving. Teachers’ overall scores out of a possible total of four and their sensitivity to the children in their care (possible total of four) are reported in Table 8.

All three teachers were observed and scored on the Caregiver Interaction Scale twice on Wednesday, midway through the week of the study at their child care site. The

Table 8

Teachers' Overall Scores and Sensitivity Subscale Score on the Caregiver Interaction Scale

Teacher	Overall CIS Score	Sensitivity Subscale Score
Rochelle	2.97	2.0
Tori	3.59	3.05
Frangela	3.15	2.6

Caregiver Interaction Scale provides a window into a teachers overall interaction style and responsiveness to the children in her class. Total overall scores for each teacher are shown above with Rochelle having the lowest overall score (2.97) and sensitivity score (2.0) of the three teachers. Frangela scored the next highest overall score (3.15) and sensitivity score (2.6), and Tori demonstrated the highest overall score (3.59) and sensitivity score (3.05). Scores show a consistency between the overall score and the sensitivity subscale with each teacher scoring lower on the sensitivity subscale than overall. This may be due to items number seven, 'When the children misbehave, explains the rule they are breaking' and item number eight, 'Encourages the children to try new experiences.' For both of these items, all three teachers scored ones or two's each time they were assessed. To get a three or four on item number eight, teachers have to be heard actually encouraging a child to try a new experience and not just placing new

materials in the classroom. The Caregiver Interaction Scale provided important information as a measure of trustworthiness for this study.

Summary

In summary, three common themes emerged from cross case analysis: (a) The teachers communicated in very individual ways during interactions with the children using both verbal and non-verbal communication, (b) the teachers used a variety of disciplining practices with the children, and (c) the teachers uniquely engaged in activities with the children. There were also differences in themes discovered through data analysis. Two teachers had (d) the teachers used responsive, individualized care of the children as a common theme. One teacher had (e) the teacher is one with the rug and spent large amounts of time on the children's level and another teacher had (f) the teacher was inconsistent in her physical and emotional presence, supervision of children and sensitivity to children's needs as a theme of her practice. From these themes, patterns of teacher practices emerged that will be discussed in Chapter V.

CHAPTER V

DISCUSSION

The overall purpose of this study was to examine, explore, and describe teacher/caregiver practices that may be considered to be supportive of toddlers learning to regulate their emotions and behaviors. Specifically two foci were examined in this research study: (a) practices teachers/caregivers used to create relationships with toddlers, and (b) practices and strategies teachers/caregivers used when responding to a child who was distressed, upset, or crying.

The chapter will first discuss bio-ecological theory as the framework for this research study and its relationship to the two research foci. It will be followed by a discussion of teacher practices gleaned from the study that appear to support growth promoting relationships with toddlers and high quality practices used to calm children who are upset or crying. Temperament as the child's innate biological tendency to respond to teachers/caregivers in particular ways will be presented and discussed in relationship to the children in this study. Finally, limitations of this study and areas for future research will be discussed.

Theory

As noted in Chapter I, the theoretical framework for this study is bio-ecological systems theory (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 1998). This model identifies “proximal processes” as the central core concept in the model. Proximal

processes are interactions between people, objects, and symbols that are repetitive and therefore, pattern forming. Bronfenbrenner asserts it is within the proximal processes, the interactions between people, objects, and symbols that happen on a fairly regular basis that development occurs in a very powerful way. He calls them the “engines of development” (p. 996).

The two research foci for this study are the study of proximal processes between teachers and the children in their classrooms. Parents, teachers, and caregivers create patterns of interaction and relationship through interactions with children on a day-to-day basis. They are building, through repetition, the foundation for how children should relate to others in socially appropriate ways, how to care for themselves, problem solve, and regulate emotions and behaviors. Proximal processes become increasingly more complex with time, according to Bronfenbrenner and Morris (1998). This may be seen in the repertoires or patterns of interactions and routines that children and their teachers develop over time, such as the multitude of rhymes and finger plays children learn from their teachers/caregivers or the patterns of routines for individualized care during diaper changing, eating, being put to nap and playing.

Analysis of the data for this study (observations, teacher and parent interviews, Colorado Childhood Temperament Inventory, Caregiver Interaction Scale, center director and teacher demographic data sheets, and teacher’s professional development history for the past 3 years) revealed and described the patterns of interactions between teachers and children (proximal processes). As described in Chapter IV, there were a variety of practices that emerged; some practices could be called growth promoting and others

growth inhibiting (Bronfenbrenner & Morris, 1998). If taken literally, any and all interactions and practices the teachers used with the children may be considered to create relationships with toddlers; however, those practices considered to be growth promoting are known to lay the foundation for many child development outcomes, including the development of emotion regulation skills.

Crucial to growth promoting early relationships is the creation of a deep sense of physical and emotional safety and security. Gunnar et al. (1996) provided solid evidence for how children with close early relationships with their teachers/caregivers have less elevation in stress hormones when upsetting events occur and these children calm down more rapidly when the event is over than those with insecure attachment relationships. Gunnar et al. (1996), Gunnar and Cheatham (2003) and Thompson (2001) noted how close early relationships buffer the developing brain from an excessive release of cortisol during stressful situations, as adults act as external regulators of children's emotions. Rothbaum et al. (2000) and the National Research Council and Institute of Medicine (2000) noted how young children who develop secure attachment relationships to their caregivers are said to be more independent, better able to regulate negative emotions, and better able to establish quality relationships with their peers than their age mates with insecure attachments. Therefore, the development of a nurturing relationship with a caregiver is essential to healthy development including emotion regulation.

Practices Teachers Use to Build Growth Promoting Early Relationships with Toddlers

Through development of themes, many practices were identified that the teachers used to build relationships with toddlers and practices used to calm children who are upset. The positive aspects of these practices are ones that appear to build nurturing, growth promoting relationships, and create the context for toddlers learning emotion regulation skills. These practices help keep children's level of arousal and stress response low, and again, support the children's self-regulatory efforts. The following list of teacher practices is gleaned from this research study. These practices appear to build positive relationships with toddlers and therefore, influence the early development of emotion regulation skills:

1. Being both physically and emotionally present to the children
2. Providing warm, responsive, predictable care
3. Spending a large part of the day sitting, kneeling or bending down on the children's level
4. A steady stream of both verbal and non-verbal (emotional) communication that is positive and warm
5. Narrating what is happening, explaining, and giving advance notice for changes in activities
6. Language that is respectful and responsive
7. Appropriate use of warm, sensitive touch

8. Engaging in many, ongoing reciprocal interactions where teachers stop, look and listen for the child's response
9. Looking and listening with attention to what children are saying
10. Consistent primary teachers/caregivers
11. Offering choices
12. Labeling and describing emotions
13. Daily routines that build a sense of safety and security
14. Setting limits in ways that model and teach children appropriate social skills and self-regulation
15. Offering comfort and support for children's emotions in ways that model for them strategies for how to take care of themselves and calm themselves down.
16. Emotional protection and fairness
17. Distraction
18. Inviting participation in activities rather than requiring it
19. Creating space or access for children to come and be near, around or in lap of teacher/caregiver
20. Calling children by their names
21. Allowing time for transitions
22. Engagement in shared activities that are fun, enjoyable and provide a sense of delight, emotional connection and create meaning between teachers and children

These above named practices appeared to be both positive and growth promoting. They are practices that are developmentally appropriate and foster a sense of physical and

emotional safety and security. They are practices that are responsive to children's needs, whether for comfort and support or for engagement with the social environment. These practices provide the modeling and teaching of how to relate to others in socially appropriate ways and provide the nurturance that toddlers require for the development of healthy self-esteem, identity, and relationship.

Practices Teachers Use to Calm Children who are Upset or Crying

The following are a list of practices teachers used when responding to a child who was upset, distressed or crying. These practices were used when the child was actively crying or upset. These practices were aimed at calming the child and helping manage or regulate his/her level of arousal.

1. The use of touch, holding, hugging, rocking, soothing
2. Distraction
3. Being emotionally present to the child (speaking softly, giving eye contact and attention)
4. Offering a pacifier, blanket, pillow case, cracker, other favorite objects
5. Asking what is wrong and how can I help
6. Narrating what is happening, explaining
7. Labeling emotions
8. Offering choices
9. Getting down on the child's level
10. Setting limits and using conflict resolution

11. Creating access or space for children to come and sit next to or in lap of teacher/caregiver
12. Emotional protection
13. Offering comfort and support in ways that model how to do it for self

Themes

Wise teachers and caregivers of young children are known to set the emotional tone of the classroom and create positive, nurturing relationships with children (Bredekamp & Copple, 1997; White & Howe, 1998). The three teachers in this study, Rochelle, Tori, and Frangela, each acted in particular ways to create and sustain the emotional climate of her classroom and used practices that built relationships with toddlers. However, as mentioned earlier, there were differences in the quantity and quality of their practices. The teachers had three themes in common: (a) the teachers communicated in very individual ways during interactions with the children using both verbal and non-verbal communication, (b) the teachers uniquely engaged in activities with the children and (c) the teachers used a variety of discipline practices with the children. There were also differences in themes discovered through data analysis such as two teachers had (d) the teachers use responsive, individualized care of the children, as a common theme. One teacher had (e) the teacher was one with the rug and spent large amounts of time down on the children's level, and another teacher had (f) the teacher was inconsistent in physical and emotional presence and supervision of children, as a theme of her practice. These themes will now be discussed as they relate to the research foci.

The teachers communicated in very individual ways during interactions with the children using both verbal and non-verbal communication. All three teachers used both verbal and nonverbal communication with the children. Siegel (2001) suggested that nonverbal communication is an important channel for emotional information to be passed from one person to another. Kostelnik et al. (2006) agreed, noting how emotional content and meaning are often conveyed more truthfully with nonverbal communication.

As mentioned earlier, Rochelle, spoke to the children in what appeared to be responsive and restrictive language at times. While there were times when Rochelle engaged in kinder, more responsive language, her use of more directive, and sometimes negative language provided less support than other teachers for the building of relationships and creation of a sense of emotional safety and security.

Verbal and nonverbal communication was a strength of Tori's practice. In addition to talking frequently with the children, she would narrate, explain, and give advanced notice for what was happening or going to happen next. This helps children understand their world and feel a sense of security. Galinsky (1990) suggested that giving explanations to children helps children develop self-control and be more cooperative.

Frangela's language with the children was also responsive, but a bit directive at times. Frangela was especially good at giving eye contact and then cocking her head to the side to catch the eyes of the child, and engage them with her big wide eyes and smile. As mentioned earlier, Frangela's pace was a bit slower than either Rochelle's or Tori's, and this pace invited reciprocity and ongoing conversation. Frangela's strengths lay in

her sensitive pacing of interactions and her intentional cocking her head to the side to catch the eyes of the child.

Another aspect of verbal communication with the toddlers in Frangela's class is that the children appeared to be more verbal in her classroom than at either Tori's or Rochelle's. The reason may be that Frangela works in a very lovely, five-star licensed child care center, where there appear to be more middle class families than at the other two sites. Other possible reasons why children in Frangela's class appeared to be more verbal are that this group of children has parents who speak to them more often than parents at the other two sites, or that Frangela's ability to use a slow pace of interactions provides more opportunities for child response and learning.

Tori and Frangela engaged with the children each and every day in songs, rhymes, and dancing, with lots of hand and body motions that allowed the children to express themselves verbally and nonverbally. Both Tori and Frangela would ask the children, what they wanted to sing and then would stop, look, and listen for their response; their input. Giving eye contact and listening with attention for children's responses is critical to the establishment of relationships. They both engaged in much looking and listening with attention. The above mentioned kinds of language, activities, and teacher practices of Tori and Frangela were seen as supportive of building relationships and providing a sense of emotional connection between children and teachers.

While Rochelle was limited in her ability to engage in reciprocal interactions by giving mostly orders and directives, both Tori and Frangela engaged in reciprocal interactions that were verbal and nonverbal. They used their voices along with a

multitude of nonverbal signs, cues, and behaviors. Reciprocity implies give and take in communication and choices (Stone, 1993), while Siegel (2001) suggested that reciprocal, nonverbal cues and signals creates a joining of two minds at a basic level of “primary emotions” (p. 78). This may have also contributed to a sense of emotional safety and security (Schore, 1994, 2001) and the children feeling “felt” by their caregiver’s mind and emotions (Siegel, 2001). Toddlers may feel heard and know they can get their needs met by a teacher who listens and responds to them.

One other difference between the lead teachers in this study was that Tori routinely talked and engaged with the children, unlike Rochelle, who might walk out and leave for awhile, or Frangela who might disengage emotionally or turn her back to the children for a short time. Observations showed that Tori routinely talked and engaged with the children as the moment called for it. This builds relationship, connection, and self-worth with children.

These three teachers in their own individual ways used both verbal and nonverbal communication to delight, enhance, connect, and bring meaning to the children’s lives, with some communication being of a higher quality than others. The interpretation of their communication efforts with the children in each classroom seems to point to the fact that it is not so much that each teacher engaged in verbal and nonverbal communication with the children, but in the quality of the exchanges. How they communicated and whether there was allowance for children’s responses to teacher talk, turn taking in conversation, what their tone of voice was, and whether they used a combination of both verbal and nonverbal communication together in their interactions was important.

The teachers uniquely engaged in activities with the children. Bodrova and Leong (2007) noted how engagement in shared activities creates meaningful social environments for child learning. When teachers are direct participants or planners of shared activities it creates opportunities for child engagement, relationship building, and learning social skills, such as emotion regulation. Teacher-child interaction and engagement in shared activities also builds relationships by creating social and emotional connections between teacher and child that are strengthened each day as some of the play routines and rituals are repeated.

Rochelle would engage the children each morning during specific times such as table toy times first thing in the morning, art project time, and out on the playground. These were times when Rochelle had a plan and appeared to intentionally want to spend time with the children. She would set up activities such as painting on the playground, blowing bubbles, chasing the children around the yard, or pushing them on trikes, which she appeared to enjoy. It seemed that because she enjoyed it the children also did to an extent. In particular, the day that Rochelle and the children blew bubbles on the playground was a time of delight and laughter for them all. It was a time when Rochelle was connecting with the children and perhaps providing a sense of safety and security through her presence and attention.

Some of Rochelle's planned art activities may have been above the level of the children's abilities and not their interests, yet she put effort into them. The children's responses were to enjoy the activity for awhile and then they might become bored or tired of waiting for a turn. They would want to get up and try to leave, which was not allowed

at times. The high level of the activities combined with some low level language and directives from Rochelle made it a less than happy occasion at times. The activities were mainly teacher directed with high expectations for child attention and sitting still. While the activities were sometimes fun, there were also times when it led to disciplinary actions. They did, however, provide a time of focused activity and engagement.

It may be that the high expectations and required participation in activities are the result of Rochelle having very little training in early childhood education. Most of her teaching time for the past 7 years has been with after school care. For the children in her classroom these practices appeared to be stressful and lead to frustration on their part.

Tori, as mentioned earlier, enthusiastically engaged the children each day in shared experiences that created meaning and built relationships, such as vocalizing songs and rhymes in combination with hand motions, reading, dancing, clapping, and plenty of games. Tori gave her attention and presence to the children in ways they responded to by wanting to be near her, sit next to her, be in her lap, or have a hand on her shoulder or leg. She led activities that appeared slightly different than directing activities (it appeared she was one of them), and was also responsive to children's initiations and their interests. She would engage the children routinely, whether in the classroom or on the playground outside. Whether it was to play ball, go down the slide or swing on the swings, Tori was present and supportive of the children's interests. Through routinely engaging the children in shared experiences that were fun and playful Tori acted to build relationships with her toddlers. At times it is the social environment created by the teacher that maintains a child's interest when they are first learning new skills. Having a teacher who

makes it all enjoyable keeps the child's interest (Bodrova & Leong, 2007). The interpretation of Tori's practices while she engaged with the children was that she was both physically and emotionally present and available to them. She was on the floor and very much a participant in the activities with the children.

Frangela also spent time each day engaging with the children in ways that built positive relationships. Each day Frangela would spend time singing songs, reading, and dancing with hand motions, and she would engage the children in art projects that were more on toddler level than Rochelle's were. Frangela would also spend time engaging children one-on-one, as when she changed their diapers, allowing some individual time for her and the child to engage in a song or conversation and for Frangela to fill their eyes with her smile and wide eyes. Frangela also extended play when a child wanted to continue doing an art project that had great interest to him/her by taking out more paper and letting the child do another one, keeping up his engagement with the materials and group. There were other times, however, both inside and outside on the playground, when Frangela would disengage and take a break, whether to sit on a cushion, get a snack, turn her back to do paperwork, or retrieve things in her pocketbook. Frangela seems to be disconnected from the children at these times.

Emotional presence and availability appears to be one of the biggest differences between the practices of Tori, Rochelle, and Frangela. For a teacher to be both physically and emotionally present with children she has to be with them and also be giving her attention and eye contact to the children. Tori's emotional presence, her attention to, and

presence with the children meant they had her with them. It was as if she was one of them. It was evident that she and the children she cared for had close relationships.

Rochelle, on the other hand, was physically present much of the time and yet would leave without notice (from playground and classroom) and somehow was not able to be emotionally present with the children a large part of the time, not giving them her attention, her eye contact and presence. Frangela was always physically present to her children and yet as mentioned earlier, would turn her back to the children and disengage, at times becoming emotionally unavailable to them.

For the children, having a teacher who is only emotionally present some of the time may mean they are not able to connect with their teacher in ways that are needed. It may be that the teacher misses subtle cues and signs of tiredness, need for a change in activities, or that the teacher is insensitive to the continuity of the morning and the fact that a child has needed some individual time with the teacher more than other days. The teacher may miss the two children who need encouragement to try a new activity or some support for developing conflict resolution skills. When teachers are not emotionally and physically available to children, the children may experience a sense of routine and custodial care rather than individualized, responsive care. This has effects on both the developing relationship and the child's ability to manage/regulate his/her level of arousal and therefore, the development of emotion regulation skills.

The teachers used a variety of disciplining practices with the children. Building relationships through the use of appropriate and effective discipline practices is a strong component of developmentally appropriate practice (Bredekamp & Copple, 1997).

Toddlers are at a stage of learning how to act appropriately in different settings and how to ask for and get what they want without hitting or biting another. They are also learning how to understand what emotions are and which ones are acceptable to be expressed, and in what ways. A classroom where the teacher wisely uses discipline practices to provide the children with a sense of physical and emotional safety and security, builds relationships based on fair play and respect for each child and helps the children regulate their emotions. All three teachers in this study used a variety of discipline practices with children and the quality of their practices was unique to each one of them.

Observation data reveal that discipline was a major theme for Rochelle's classroom as children acted out of bounds and hit and bit more frequently than children in the other two classrooms. Rochelle used discipline practices that at times appeared not very respectful of children or supportive of building a sense of physical or emotional safety and security in the classroom. Part of the children's behaviors may have been in response to some of Rochelle's practices such as not supervising them closely enough and being absent from the room. It may have also been that the only way some children could get attention was to create problems. Rochelle would scold children and at times, pull them under their arms to get them up and off the stairs at the sink or put them back in a chair for an activity in which they were no longer interested. These practices seemed to create a game for some children; for others it was just a momentary interference, as they would return to do it again.

The one child restrained in time out appeared to antagonize Rochelle. Her discipline approach to wrestle him to the ground and sit him in time out seemed highly

inappropriate. He was just a toddler, even though he appeared much older at times. Rochelle appeared to be hypersensitive to this child's behavior. When the substitute came on the playground on Friday and played well with the children, including JF, it provided evidence for the mismatch or lack of 'goodness of fit' (Chess & Thomas, 1991) between Rochelle and JF. When Rochelle returned to the playground she put JF in time out in less than a minute for bumping into a child.

For Tori and Frangela, discipline was more of a minor theme, as there appeared to be many fun things going on; they did not have to use discipline practices nearly as often as Rochelle. Tori was very consistent with her practice which primarily was to tell a child very directly 'you cannot have or cannot do that' or 'get down from there.' It may be that because Tori had a relationship with the children, they listened to her and responded at once, or it could be that the children in her classroom had easier temperaments and therefore responded quickly to her requests.

The same was nearly true for Frangela. There were plenty of fun things going on in this classroom and so children mainly focused on playing. However, Frangela in her interview noted that "discipline is the hardest thing." She did take action right away when one child bit another, and had the child sit next to her on the playground, yet she did not follow through very quickly when CR was screaming as R was taking her push toy. Frangela also mentioned in her interview that she uses the same practices for toddlers that she used with the four-year-olds she used to teach, and therefore she may need an update and training on discipline for toddlers. Even though she may need additional training, Frangela had only minor discipline issues arise during the week of the study.

She frequently used redirection and distraction as discipline techniques and sometimes would scold the children in her classroom, yet they quickly responded to her easy manner and guidance.

Tori was the only teacher who used the practice of giving advanced notice for the change in activity. This is a practice that is very respectful and acts to prevent discipline problems by allowing children notice and time to transition to another activity. This practice helps with regulation and management of their level of arousal and therefore ability to remain in a calm state.

All three teachers used the practice of getting out a second copy of a toy to settle two or more children fussing over the same toy. They understood this practice clearly and used it more than once. This is a practice that also acts to reduce children's level of arousal and helps them regain their calm state, knowing they don't have to fight to get a turn with the toy they wanted. All three teachers also used speaking to children in a directive way such as 'no you can't or get away from there' as a way to very clearly state what needed to happen. They also used redirection to deal with minor discipline issues. Rochelle and Frangela used 'time out' as a discipline strategy; Rochelle used 'time out' for only one child and Frangela used it for one child who bit another. Tori said in her interview that she does not use 'time out' and this was consistent with her observed practice.

When teachers take action to make sure the children are physically and emotionally safe the children's stress level may be lower due to the sense of comfort that

a safe and secure environment conveys. They also may be comforted by a teacher on who they know they can depend to take action to meet their needs for a safe play space.

The teachers provided responsive, individualized care of the children. Early childhood research reports of the powerful effects on children's development when teachers use responsive teaching/caregiving practices (Bredekamp & Copple, 1997; Sroufe, 1996; Weinfield et al., 1999). Responsive care includes practices such as responding promptly, appropriately, and sensitively to the child, and also includes the emotional availability of the caregiver, which strengthens the relationship between the child and caregiver (Richter, 2004).

Two of the three teachers (Tori and Frangela) used responsive practices and individualized care of the children. Frangela in particular individualized her care of children. One difference between Tori and Frangela was that Tori was by herself a lot of the time with six children and Frangela had T2 with her most of the time, thus allowing for increased opportunities for individualized care and interaction. Rochelle, on the other hand, appeared to be non responsive and at times ignored her children. Rochelle did not appear to be overly responsive or sensitive to children who were crying or upset until Friday when she had a migraine headache and then she seemed a lot more sensitive to children who were crying or upset, as if she were hearing them for the first time.

Tori responded consistently throughout the day to children whether they wanted something or were hurt and needed a hug. When changing diapers for example, she would have her back to the room (due to an old diaper changing table) and yet would put one hand on the child on the table and then turn around to answer any child who was

calling her name or crying or fussing with another child. She spoke immediately to children who were fussing or crying and it appeared to stop, whatever the problem was right then. She was very consistent and it seemed the children knew it and so when she spoke, they responded. Another practice she was very consistent with was allowing children to come up to her and drop into her lap anytime they wanted. She gave lots of hugs and it was interesting that many children would drop in for a hug and then leave a few minutes later appearing emotionally refueled. She individualized for children throughout each morning as much as possible, being the only teacher with six children, and as parent two said, she knew her children and what they needed.

The one exception to the rule was MA, who cried and cried and was not able to be comforted by Tori unless she was being held. Tori used a number of strategies with MA such as holding, rocking, speaking to her, putting her in the swings when outside, putting her in the buggy first when it was time to come inside and taking her out last when they got to the door of the classroom so MA could be carried inside, giving her a pacifier, crackers, blanket, juice, and putting her in the high chair next to the diaper changing table. These were Tori's efforts to help MA and yet they had little success most of the time.

Frangela also responded to children who were upset with a variety of practices. She would hold and hug them, speak to them, and sometimes not respond, but perhaps ignore. Frangela also would explain to the children how CA was feeling sad because her mom just left, while holding CA and offering comfort and support. She would hold R who might not have gotten what he wanted, and explain to him that she understood he

was upset. She would also distract children, such as when CA was crying on the diaper changing table and Frangela gave CA her diaper to hold for a minute, distracting her from being upset. Frangela used distraction quite often. One of Frangela's biggest strengths was her warm, gentle nature which she used to calm and comfort children when they cried. She would use both verbal and nonverbal communication together to respond, giving eye contact and holding to comfort them.

Diaper changing was a very special time in this classroom as Frangela would be with just one child and would give all her attention and conversation to that child. The children knew what to expect, because as soon as she got them on the table, if she did not start talking, they would and then it would begin, a lengthy, warm, responsive, reciprocal interaction as she changed their diaper. It is interesting that she took about 7 minutes to change one diaper and although that does not sound very long, when you consider that T2 was leading activities with the other 7 children and for Frangela to take seven minutes with each of them, the diaper changing could go on for an hour. At times T2 would speak to hurry up Frangela so they could begin an activity or go outside. Frangela's warmth and individualizing care acted to build growth promoting relationships with her children.

On the other end of the spectrum, there was great distress in Frangela's classroom with sending children to be redistributed during times when they were out of ratio. This caused a number of children to cry and it upset Frangela as well. Frangela would comfort and hug children who were sent back until they calmed down. She mentioned in her interview that she wished that they could bring an adult into the classroom, instead of sending a child out when it came time for redistribution. It is interesting to note that L, a

child who had been very well behaved all week, bit another child within two minutes of coming back from being redistributed, appearing to show his feelings about this practice.

The feelings these children had as they were moved from their trusted teacher/caregiver to another classroom, with a teacher they appeared to not know, may have been very scary for them. It seems like a practice that is not responsive to children's needs and does not fit with what is known as best practice in the field of early childhood. Erikson's (1950) theory of a child developing a sense of trust in the caregivers is challenged by this practice. Trust that the caregiver will respond to the children's needs and protect them from physical and emotional harm is the basis of this concept. The practice of sending children down the hall to a new classroom without notice or telling them where they were going, with whom, whether they would be coming back, or that she would go and get them, may have undermined their sense of trust. The practice of redistribution, therefore, is a practice that clearly does not build growth promoting relationships with children or efforts to learn emotion regulation. It may be that this child care center's efforts to maintain its five-star rating by keeping the ratio of children to teachers low, does so at the expense of the children.

The teacher was one with the rug and spent a large amount of time each day down on the level of the children giving eye contact, smiling and playing with them. One of the most important outcomes of this study appears to be what happens when children and teachers/caregivers are down on the floor together. As presented in Chapter IV, Tori spent most of her days down on the level of the children, sitting on the carpet or floor with them. This was a hallmark of her practice and part of the reason why the researcher

saw Tori as ‘one of them.’ It seems that there are certain nonverbal communication behaviors that are more easily seen and felt when a teacher is sitting down on the level of the children, such as giving and receiving eye contact, smiling, smirking and nodding at each other, joint attention, proximity, and touch. Tori engaged in many one-on-one and face-to-face interactions with the children that looked highly engaging and stimulating. Additionally, Tori and the children engaged in frequent touch, which might just be a child who puts her arm on Tori’s leg as she reads a story or a quick drop into Tori’s lap for a hug and then out again. Being down on the children’s level also provided a secure base for the children from which to explore the room and return to their teacher for emotional refueling as needed.

Schore (1994, 2001) and Siegel (2001) described adults’ and children’s matching of emotional states, right brain connecting to right brain, and the passing of emotional information from one brain to another during times of affective synchrony and social referencing. Siegel (2001) suggested that reciprocal nonverbal cues and signals “creates a joining of two minds at a basic level of ‘primary emotions’” (p. 78).

When Tori and the children in her class were on the floor together, there was much face-to-face interaction and engagement, and a great deal of reciprocal play and eye-to-eye contact using both verbal and nonverbal avenues to communicate with each other. In addition to affective synchrony and social referencing, these reciprocal interactions and activities and Tori’s placement down on the level of the children, appears to be another time when adults acting in this manner are entraining the child’s less mature emotional states and right brain and passing emotional information from adult to child. It

appears that the adult uses her more mature emotional states and mind to give ‘a leg up’ to the young child, patterning them with the adults more mature states and processes. It almost appears to be an ‘older child’ example of what is called the affective attunement (Schore, 1994; Stern, 1985) that infants engage in with their primary caregivers. If one had a videotape of these highly engaging interactions it might be interesting to view them in slow motion and look to see the dance taking place of face play and hand and body motions, both verbal and nonverbal communication and exchange.

One of the most important outcomes of this study is that teachers/caregivers entrain the young child’s right brain, body, and behavior through matching emotional states and engaging in highly interactive, reciprocal communication. Observing Tori and her children on the floor, it was almost made visible by the addition of some small cars and trucks that they ran back and forth on the carpet from one to the other, back and forth reciprocally, using motor skills as a visual picture of what was happening with the brain, body, and behavior becoming entrained by the caregiver.

The teacher was inconsistent in her physical and emotional presence, supervision of children and sensitivity to their needs. Meeting the needs of children in a predictable and consistent fashion is known to lead to a sense of trust and emotional security (Erikson, 1950; Bredekamp & Copple, 1997). Unfortunately, inconsistency in the care of the children was a theme of Rochelle’s practice. Rochelle spent plenty of time away from the classroom and therefore had no visual supervision of the room at these times, and then even when she was in the classroom, she might engage in teacher talk or turn her back to the children to prepare art materials or get a snack or other things. There were

specific times in the observation data that report ‘no one is watching the children’ because teachers had their backs to the children for some period of time. Lack of emotional availability and presence to the children emerged as a practice of Rochelle.

Rochelle did not get down on the level of the children except to do table toys, art projects, pass out lunch and once or twice to rub backs until it was time for her lunch break. She was not seen sitting on the rug or floor at centers with the children in the classroom all week. The reading or soft comfort area in the room was not used once all week, except for children to climb on the large pillows. There were no books read to children during the week other than books the children ‘read’ to themselves. During free play time, Rochelle changed diapers or did other things rather than be with the children on the rug and so was emotionally unavailable to them.

Trust, and the building of relationship, states Kostelnik et al. (2006), is learned through routine and ongoing interaction and communication with teachers/caregivers. With ongoing interaction, young children’s behaviors, and their care givers’ responses to those behaviors, form the foundation for a growing sense of emotional safety, security, and confidence in self. The children in Rochelle’s classroom appeared lacking in a teacher/caregiver who could meet their needs on a routine basis with warmth, sensitivity, and responsiveness. This may undermine the sense of security children need as toddlers. The children may lack a close connection and relationship with their teacher. It may also mean the children are patterned in ways that tolerate inappropriate behavior, and they may come to expect that they are to be treated with less respect than other children.

It is curious that both interviewed parents reported Rochelle to be kind, helpful, and good with the children. It may be that during times of drop off and pick up that Rochelle was present to the parents, taking time to speak with them and say hello to their child. Observation data showed she was present when most parents brought their child in and she did speak to most parents. It may also be that after their parents left they had no idea that she might leave the classroom often or for extended periods of time or that she would ignore the children or turn her back to them when in the classroom. Parent two reported that he only was there for a few minutes each day during drop off and pick up. He did say, however, that he liked Rochelle very much and that his child liked her. Parent one also liked Rochelle and said she comforted children who were upset and played with them on the playground. Observation data also showed that Rochelle did play with the children on the playground yet took breaks from there as well and left the children with T2 or T3 or a substitute.

Temperament

Fox and Calkins (2003) presented both extrinsic and intrinsic factors influencing the development of emotion regulation. Two extrinsic factors are the care giving environment and cultural expectations regarding which emotions are appropriate to be displayed. Intrinsic factors are shown to be child temperament, cognitive processes, attention, and inhibitory control. While this study focused mainly on the extrinsic factor of the care giving environment, the children's temperaments will be discussed as an intrinsic factor influencing how children responded to their teachers' practices and how they may have influenced those practices as well.

Each child in this study was assessed by both the teacher and his/her parents with the Colorado Childhood Temperament Inventory (Rowe & Plomin, 1977). Results were presented in Chapter IV for each class of children. The majority of parents from the three classrooms perceived their child to have a longer attention span and higher activity level than their teachers rated them. This was consistent for these two subscales across the three classrooms. It may be that children are able to focus more (have a longer attention span) when at home, as there may not be the stimulation of as many children that are at child care. It also may be that when parents are with their children there is only one or two people to interact with, which may lessen children switching from one person to another as may happen at child care. There may also be many reasons why parents see their child as more active (higher activity level) than the teacher does. Could it be that the teacher has a more realistic picture of toddler activity levels as she works with so many toddlers on a regular basis? Do parents have a realistic picture of the average toddler's activity level? The rest of the subscales as reported in Chapter IV show that teachers and parents had different perceptions of children on the other subscales of emotionality, sociability, and soothability.

Children's responses to Rochelle's practices seemed to be partly in response to the fact that she didn't supervise them closely or give attention to individual children often. There appeared to be a continuum of responses to Rochelle's practices partly based on child temperament. Some children dumped toys in the classroom, stood on their heads, or climbed the pillows or the book case in the corner (JF, GU, GA, JH), and others might actually do something to tune out or play independently (T, C, R). T was a child who

would say things like ‘it’s ok, it’s ok’ in response to something that was upsetting to him, apparently trying to calm down. He seemed to play independently by himself. Another child, C, mentioned in Chapter IV, had a number of strategies to entertain himself when there was a lot of noise in the room. He would sit at the table with a book and tune out the noise, or take off and look at his shoe and study it. C was a child however, who could dump toys or choose to sit and read a book. He did both at different times.

Of all the children observed in this study, JF was the child who seemed to have the most difficult time interacting in a positive way with his teacher and her with him. Rochelle seemed to be overly sensitive to this child and he could have the same behavior as another child, yet receive a much worse punishment from Rochelle. He seemed to openly challenge her and would do the opposite of what she wanted him to do at times, including not being willing to sit in time out. They appeared to be quite a mismatch of personalities and temperaments. JF also had an earache all week and was sent home one day with pus coming out of his ear and returned the next day perhaps without seeing the doctor. He spent time sticking mulch in his ear on a few days and seemed to have other troubles than just a difficult time with his teacher. His parents did not score him nearly as emotional as Rochelle did, but other subscale scores between the two of them were scored similarly. JF influenced his teacher’s practice in a big way with his behavior and Rochelle also influenced JF. Again, there appeared to be a mismatch in temperaments and personalities, as well as the possible influence of his ear ache.

One interesting event was the appearance of the substitute on the playground on Friday who engaged JF and the other children on the ship climber. Within minutes they

were all laughing including JF and having a good time together. JF acted very different with this teacher giving eye contact and smiling and appearing to enjoy his time interacting with her. This ended when Rochelle returned to the playground and put JF in time out for bumping a child. Rochelle's practices were highly impacted by JF as she became less sensitive to other children and more impatient and punitive. He likewise was highly influenced by Rochelle. As with all proximal processes the effects are bi-directional with each person influencing the other and yet from the larger systems perspective there were profound effects on all the children in the classroom as mentioned in chapter four.

Tori scored six of nine children as less emotional and with a shorter attention span than did the parents. It may be that the children were less emotional with her until MA came. Except for MA, Tori was able to soothe and calm children with ease. MA's parents scored her as middle range (12) for emotionality while Tori scored her 25 out of 25. This was a child who appeared to have a 'lack of goodness of fit' with Tori. With MA crying so much Tori appeared frustrated at times and so their interactions were strained.

Overall, the children in her class responded to Tori quickly and with ease. They seemed to follow her around and want to be near her. Parent two noted that Tori knew her children and this was supported from the observations. Tori knew how to comfort ER, who cried at times and who was afraid at times, offering verbal and nonverbal support to her. She also knew that M needed more individual attention as she was younger and was a bit fussy at times, so Tori's practice changed to accommodate these children.

JA, another child in this classroom, gave the appearance of being an absolute delight for the first few days of the week. She was the most verbal of the children and she and Tori would smile and engage in reciprocal interactions with frequency. However, she is a child who seemed to become overloaded when MA kept crying. JA began to hit on Thursday and Friday and she had not done that before. She also at one point held her pillow case and sat on a pillow in the middle of the floor and another time curled up into a ball under a table to seemingly get away from the noise.

Calkins, (personal communication, February 4, 2003) defines temperament as "biologically based individual differences in the experience and expression of emotion." What was observed when MA cried, were some very individual differences in the experience and expression of emotions and strategies to deal with the noise. On Thursday when MA was crying, JA sat on a pillow and held her pillow case. E looked from MA to Tori (social referencing) and back again, and J kept coming over to the researcher to tell her something. D walked around with a pillow case, and M threw up on the rug. These were very specific responses to MA's crying and are unique strategies for emotion regulation.

Tori's practices were definitely changed and influenced by MA's behavior, temperament and great need to be held most of the time. The strategies that Tori used did not appear to work well with MA. This child challenged Tori's skills and abilities repeatedly, and Tori's routines and practices shifted due to MA's demands. As Tori's practices began to unravel and she became stressed there were effects not only on MA but on all of the children and classroom. Tori was not able to keep up the consistency and

responsiveness that was a hallmark of her practice until MA came to child care. As noted in chapter four, the effects on the children of MA's crying and Tori's inability to stop it or calm her were individual and unique to each one of them. One unified response to MA's crying was when the children all began to wail or chant together and wave their arms in the air as they sat outside the bathroom waiting to get their hands washed. Then the young one-year-olds from the other side of the room joined in as well. It was like a huge release and then it was quieter in the classroom.

Children basically responded very well to Frangela and there did not appear to be any lack of 'goodness of fit' (Thomas & Chess, 1977) between her and the children, yet it did seem as if Frangela had a favorite child or two. B was a child who had almost white blonde hair and was very pale. Frangela also had very white/blonde hair and was fair skinned. B also was a bit sickly that week and so she appeared to tend to him a bit closer and speak with his mom longer than the others. When a few children got in a fuss and more than one was crying Frangela picked up B instead of another child to comfort.

CR was a child noted in Chapter IV who had lots of spirit and social skills. She would engage the adults and smirk and smile at everyone and dance all around. Frangela did spend a lot of time responding to this child who reached out to Frangela and invited her to engage in play. Another child R presented himself as a very well regulated child as evidenced by his easy drop off and separation from his mom in the morning, and his ability to be redistributed and come back apparently fine. He was a child who would cry if he did not get to go and be redistributed. He seemed to enjoy new experiences, where other children did not. Thomas and Chess (1977) describe this as differences in

temperament and self-regulation. One last child to be mentioned in this class was an Asian child CA, whose parents scored her as very sociable and soothable and as having a very high activity level. Frangela scored her on the opposite end of the spectrum. It looked like a cultural difference to this researcher as CA appeared to be a very shy and quiet child whose activity level was the lowest in the class or it could have been the reflection of temperament in different environments. CA could have been as active as her mom scored her (25) while at home and yet at child care she was the youngest, smallest and newest to the room and therefore may have felt inhibited while at child care. This could be the influence of the social environment on the child's temperament.

Of the three lead teachers, Frangela had the biggest difference between her scores and the parent's scores with all eight parents showing a higher activity level and seven of eight parents believing their child to be more sociable and with a longer attention span than did Frangela. Five of eight parents also reported their children as more easily soothed than Frangela scored them to be. A possible explanation for this may be that Frangela had only been working with toddlers for six months and so may have a less accurate perception of toddler abilities than their parents.

Toddler Strategies for Regulating Emotions and Behaviors

In addition to the practices the teachers used with the children, there were certain strategies that toddlers were observed using to manage and regulate their emotions and behaviors. Children used some of these strategies when they were overloaded with emotion, such as when MA cried for a long time or when they returned from redistribution. They are as follows:

1. Social referencing: two different children in Tori's classroom did this to see if she was going to respond to MA and how they were suppose to feel about it.
2. Self talk: 'mommy be back, mommy be back' or 'it's ok, it's ok,' children used these phrases to manage themselves when upset.

3. Using a pacifier, sucking thumbs, holding a blanket, crackers, juice cups to comfort themselves.

4. Distraction with toys so not noticing that mom was leaving or that they had to wait a bit longer for lunch.

5. Vocalizing, asking for help, raising their arms to their caregiver.

6. Walking away from things that are upsetting or averting gaze.

Strategies and behaviors children used to manage stress, yet not very effective ones, included:

1. L after returning from redistribution bit another child.

2. L standing absolutely still while the workman was in the room and social referencing to Frangela who had her back to him while changing a diaper and so he could not catch her eyes for an OK.

3. N who had carried a pillow case around to comfort herself while MA cried became more stressed and put the pillow case over her head.

4. JA who started hitting when MA kept crying. She also curled up into a ball and crawled under a table.

Kostelnik et al. (2006) noted how stress coping responses are learned early in life and create patterns of behavior that while changeable are more difficult to change with

increasing time. These children were responding to the stress of MA's crying and Tori's responses to it and inability to quiet her with strategies that were unique to each child.

Limitations of this Study

Qualitative research, while rich in detail, has potential limitations that need to be mentioned. Yin (1994) noted that case studies are at times criticized for their inability to be generalized, their lack of scientific rigor that may allow researcher bias, and the length of time case studies take to complete. Other possible limitations may be the small number of subjects, lack of protocols or boundaries on the topic of emotion regulation being studied in child care, the cultures of the children that are different than the teachers, and the fact that the parents were asked to be interviewed by the directors, teachers, and the researcher and therefore, there may be bias in the selection of certain parents to participate. This study addressed these and other concerns regarding possible limitations.

As with any qualitative research where the instrument most often used is the researcher himself/herself, the issue of researcher bias needs to be addressed (Lincoln & Guba, 1985). The lead researcher has knowledge of developmentally appropriate practices and knowledge of emotion regulation. She has also worked in infant/toddler child care as a teacher/caregiver and came to this research study with knowledge that could have possibly helped or hindered the researcher study. Being very familiar with a topic or situation can present a problem, as noted by Gold (1958), because the researcher could lose her research perspective and come to over identify with the informants. Knowing this was a possibility the lead researcher used the strategy of writing down every teacher practice she saw without judgment and then let the themes emerge from the

data. This way she was as objective as possible in the process of conducting the study. Additionally, having an auditor independently analyze the data to come up with her own themes brought a sense of trustworthiness and credibility to the study and kept potential researcher bias in check. Beyond that, there was an assistant researcher who conducted the Caregiver Interaction Scale twice on Wednesday morning at each site as another source of support for the observation data.

Another potential weakness or limitation with qualitative studies is that they frequently employ small numbers of subjects. While this may be a limitation there is no plan for generalizing the findings of this study to a larger population, and the purpose of case study design was in fact to examine and describe the details of what is going on and what is happening for a small number of people or cases, something that may not be possible with a more quantitative design and therefore a strength of case study design. This allows the researcher to go into greater detail when there are fewer cases and explore a topic in depth.

Another possible limitation is the use of all Caucasian teachers/caregivers. This can be seen as either a strength or limitation of the study. It was mentioned earlier that emotions are socialized in unique ways of individual cultures and therefore, need to be studied within culture (National Research Council & Institute of Medicine, 2000), so only Caucasian teachers/caregivers were used in the study. This created the opportunity to compare teachers from the same culture and focused the research study. Besides all three teachers being Caucasian, one real limitation was the children were from five different cultures: Caucasian, Latino, African American, India Indian, and Asian. This was an

acknowledged real limitation of the study and one that there was little possibility of avoiding or changing.

This study on teacher/caregiver practices influencing the early development of emotion regulation in toddlers in child care has not been conducted before, so there are no established protocols and procedures set up as standard for this topic, other than true qualitative protocols regarding interviews and naturalistic observations. The field of early childhood is in the pioneering stage of studying the topic of emotion regulation and specifically teacher/caregiver practices influencing the early development of emotion regulation. This is new territory. However, there are basic principles of good research, such as employing a solid research design (Case Study) that is valued in the field of early childhood, and using research methods that have a long history of use in the field as viable methods, leading to trustworthy results such as persistent observation, interviews, and developmental scales. Furthermore, establishing trustworthiness by triangulating the data supports the overall strength of the study.

Parents were sent a note through their children asking if they were willing to be interviewed and if so, to contact the director or researcher. However, without parent response it became the task of the director, teacher, and researcher to ask for volunteers. This may be seen as a limitation as directors and teachers might have asked certain favored parents and not others. This may or may not have occurred. However, the interviews were held in a quiet place where privacy could be ensured and confidentiality maintained.

One last possible limitation of the study is that the teachers were anxious when there were two observers present. Wednesday was the day the assistant researcher conducted the Caregiver Interaction Scale at each site. This may have possibly influenced the outcomes of the study, as each teacher seemed to change her practice and appeared to be slightly anxious when there were two people observing her. However, they were each observed on Wednesday of the week of study so there was consistency in that manner.

As stated in the beginning, this is an exploratory and descriptive study. It is hoped that this study will provide documentation of teacher/caregiver practices that appear to be supportive of toddlers learning emotion regulation skills. It is hoped that this research study is just the beginning of a long line of research on this topic.

Implications for Future Research

This research examined and described teacher/caregiver practices influencing the early development of emotion regulation in toddlers at child care. By conducting both a pilot study and the current dissertation study, topics for future research became visible, including (a) examining and describing African American and Latino teachers' / caregivers' practices influencing the early development of emotion regulation in toddlers, (b) examining the differences between toddlers' ability to regulate emotions and behaviors when they have a continuous, consistent, primary teacher/caregiver who moves with them when they age out and go to the next classroom and toddlers who are rotated every six months to a new classroom by themselves, (c) examining the differences in separation from parents and emotion regulation strategies of toddlers as they are dropped off in the morning between children who have continuous teachers/caregivers and those

who are rotated every 6 months, and (d) continued study on the connections between the brain, body, and behavior during reciprocal interactions between teachers and children.

One of the biggest surprises of conducting this research has been the increased awareness of the number of very young children who are rotated to a new classroom every 6 months from infancy onward. The use of consistent, primary caregivers is a foundation of developmentally appropriate practice (Bredekamp & Copple, 1997) and a hallmark of quality care of infants and toddlers. When considering that the early development of emotion regulation occurs within the context of a close relationship with a significant person, rotating children every 6 months to a new classroom appears to be a practice that undermines children's ability to trust their teachers and caregivers and develop appropriate social skills and emotion regulation. Another future direction, in addition to the studies mentioned above, is the beginning of a series of presentations to conferences on teacher/caregiver practices influencing the early development of emotion regulation in toddlers and also the importance of continuity of care and keeping children with their caregivers for extended periods of time.

Conclusion

This research study based on Bronfenbrenner's bio-ecological systems theory and the concept of proximal processes (Bronfenbrenner & Morris, 1998) had two foci: to explore and describe teacher practices that create relationships with toddlers and to explore and describe practices teachers use to calm down a child who is upset, distressed, or crying. A case study design was used with research methods such as observation, interview, and a child temperament scale. Data analysis revealed six different themes,

three of which were common between the three teachers: (a) the teachers communicated in very individual ways during interactions with the children using both verbal and non-verbal communication, (b) the teachers used a variety of disciplining practices with the children, and (c) the teachers uniquely engaged in activities with the children. There were also differences in themes discovered through data analysis. Two teachers had (d) the teachers used responsive, individualized care of the children as a common theme. One teacher had (e) the teacher is one with the rug and spent large amounts of time on the children's level and another teacher had (f) the teacher was inconsistent in her physical and emotional presence, supervision of children and sensitivity to children's needs as a theme of her practice.

While results indicate there were many practices teachers used with young children, there were certain patterns of teacher's practices used, that may be considered to be very supportive of building positive relationships with young children. Through repetitive interactions over time that become patterns of behavior, teachers fostered early nurturing relationships that support the development of trust (Erikson, 1950) and a deep sense of physical and emotional safety and security. These patterns of behavior act to provide growth promoting outcomes for young children, and the secure base needed for toddlers learning emotion regulation (see list of teacher practices).

Additionally, there were specific practices teachers used to calm a child who was upset or crying that appear to be supportive of learning to regulate one's emotional state. Listed earlier were teacher practices that may be considered to be supportive of relationship building and calming down children who were upset, distressed, or crying.

When teachers acted to respond to children who were upset in a sensitive, responsive, and predictable way, they modeled, taught, and instructed children in the skills necessary to comfort them selves and the appropriate expression of emotions. Learning to regulate one's level of arousal and manage increasingly complex emotions and behaviors is a challenge for many toddlers (see list of teacher practices).

Temperament as the biological aspect of emotion regulation was assessed on each of the children in this study. Results of observation and the Colorado Childhood Temperament Inventory demonstrated that certain children had more of a difficult time regulating their emotions and behaviors than did others. There were children (for example, C) who appeared to have an ability to regulate their attention quite well, and this was invaluable in distracting themselves from noise or upsetting events. There were also children (for example, R) who didn't mind going to redistribution and handled the time away easily. However, on the other end of the spectrum there were children (JF and MA) who challenged their teachers again and again with their difficult temperaments and behaviors. These children influenced their teacher's practices by their difficult emotions and behaviors and thus the whole classroom as a system was affected. These were children who from the researcher's perspective, were treated differently than the other children in the class. There seemed to be a lack of 'goodness of fit' (Chess & Thomas, 1991) between these two teachers and certain children. There were also many children with easy going temperaments who played well and appeared to thrive in their child care settings.

One of the greatest outcomes of this study is the recognition of the importance of teachers being both physically and emotionally present with children, getting down on the children's level and engaging in reciprocal interactions. This is also an implication for future directions. Allan Schore (1994, 2001) and Daniel Siegel (2001) have presented their ideas in the literature of what happens with a child's and adult's neurology, biology, and psychology when adults engage in affective synchrony and social referencing. This study suggests that the emotional presence of the teacher and engagement in reciprocal interactions, is another example of entrainment of the adult's and child's neurology, biology, and psychology, with the adult providing the child access to her more mature emotional states and processes.

The future directions for the field of early childhood are tremendous as we learn more about the connections between brain, body, and behavior. Likewise, teacher practices influencing the early development of emotion regulation in toddlers and all young children is a topic whose time has come. This was one of the first studies on the environmental aspect of the topic of emotion regulation and many more studies are needed. Child care as a setting for studying teacher practice influencing the early development of emotion regulation is a rich and unexplored territory. Let the research begin.

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APPENDIX A

COLORADO CHILDHOOD TEMPERAMENT INVENTORY

Adapted from D.C. Rowe and R. Plomin (1977)

Directions: Please read the description of the child's behavior and then put a circle around your answer from 1 to 5. A (1) means the behavior is "not at all true" of the child, a (3) means it is "somewhat true" of the child and a (5) means it is "a lot like" the child.

(1) Not at all true of the child	(2)	(3) Some what true of the child	(4)	(5) A lot like the child
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	(1) Not at all true of the child	(2)	(3) Somewhat true of the child	(4)	(5) A lot like the child
Sociability					
Child makes friends easily	1	2	3	4	5
Child is very friendly with strangers	1	2	3	4	5
Child is very sociable	1	2	3	4	5
Child takes a long time to warm up to strangers	1	2	3	4	5
Child tends to be shy	1	2	3	4	5
Emotionality					
Child gets upset easily	1	2	3	4	5
Child tends to be somewhat emotional	1	2	3	4	5
Child reacts intensely when upset	1	2	3	4	5
Child cries easily	1	2	3	4	5
Child often fusses and cries	1	2	3	4	5

	(1) Not at all true of the child	(2)	(3) Somewhat true of the child	(4)	(5) A lot like the child
Activity					
Child is very energetic	1	2	3	4	5
Child is always on the go	1	2	3	4	5
Child prefers quiet, inactive games to more active ones	1	2	3	4	5
Child is off and running as soon as he/she wakes up in the morning	1	2	3	4	5
When child moves about he/she usually moves slowly	1	2	3	4	5
Attention Span-Persistence					
Plays with a single toy for long periods of time	1	2	3	4	5
Child persists at a task until successful	1	2	3	4	5
Child goes from toy to toy quickly	1	2	3	4	5
Child gives up easily when difficulties are encountered	1	2	3	4	5
With a difficult toy, child gives up quite easily	1	2	3	4	5

	(1) Not at all true of the child	(2)	(3) Somewhat true of the child	(4)	(5) A lot like the child
Soothability					
Whenever child starts crying, he/she can be easily distracted	1	2	3	4	5
When upset by an unexpected situation, child quickly calms down	1	2	3	4	5
Child stopped fussing whenever someone talked to him/her or picked him/her up	1	2	3	4	5
If talked to, child stops crying	1	2	3	4	5
Child tolerates frustration well	1	2	3	4	5

APPENDIX B

PARENT INTERVIEW PROTOCOL

Project: A Study of Teacher-Child Interaction

Time of Interview:

Date:

Place:

Interviewer:

Interviewee:

Position of Interviewee:

The purpose of this study is to examine teacher-child interaction and identify the different ways teachers and children interact and what practices teachers use. Data from interviews with parents of toddlers is being collected to assess the kinds of interactions teachers have with children, particularly those that support a toddlers' growth and development. A statement of confidentiality will be given to parents to ensure their responses, their names and the names of their child and teacher are kept anonymous. Additionally, the taped interview data will be kept in a locked file cabinet for 5 years in the researcher's office and then destroyed by cutting the tapes and shredding the written copy.

Interviews should take 30 minutes.

Lead Questions:

1. Tell me how the teacher encourages or supports child learning.
2. Tell me how the teacher encourages or supports the physical development of children.
3. Tell me how the teacher encourages or supports the social and emotional development in the children.
4. Tell me about the morning routine when you drop off your child.
5. Tell me how the teacher calms down a child who is upset.
6. Tell me how the teacher settles disagreements among the children.
7. Tell me about the practices the teacher used during the transition of your child into this classroom when you first came.

(A thank you note will be sent to the parents to let them know of my appreciation for their time and the interview.)

APPENDIX C

TEACHER INTERVIEW PROTOCOL

Project: A Study of Teacher-Child Interaction

Time of Interview:

Date:

Place:

Interviewer:

Interviewee:

Position of Interviewee:

The purpose of this study is to examine teacher-child interaction and identify the different ways teachers and children interact and what practices teachers use. Data from interviews is being collected to assess the kinds of interactions teachers have with children, particularly those that support a toddlers' growth and development. A statement of confidentiality will be given to teachers to ensure their responses, their names and the names of the children are kept anonymous. Additionally, the taped interview data will be kept in a locked file cabinet for 5 years in the researcher's office and then destroyed by cutting the tapes and shredding the written copy.

Interviews should take 30-35 minutes.

Lead Questions:

8. Tell me about the practices you use to encourage or support children's learning.
9. Tell me about the practices you use to encourage or support the physical development of children.
10. Tell me about the practices you use to encourage or support the social and emotional development in the children.
11. Tell me about the practices you use with families and children during the morning routine when children are dropped off.
12. Tell me about the practices you use to calm down a child who is upset.
13. Tell me about the practices you use to settle disagreements among the children.
14. Tell me about the practices you use when a new child is transitioning into your classroom.

APPENDIX D

University of North Carolina at Greensboro

RESEARCH CONFIDENTIALITY AGREEMENT
FOR RESEARCH INVOLVING HUMAN PARTICIPANTS

I Judy Niemeyer am faculty sponsor of **Lissy (Phyllis) Gloeckler** for the research project entitled "A Study of Teacher-Child Interaction" IRB #

I agree not to discuss or disclose any of the content or personal information contained within the data, tapes, transcriptions or other research records with anyone other than the Principal Investigator, Lissy Gloeckler, or in the context of the research team. I agree to maintain confidentiality at all times and to abide by the UNCG Policy and Procedure for Ethics in Research and the UNCG Policy on the Protection of Human Subjects in Research.

Signature of Faculty Sponsor

Date

University of North Carolina at Greensboro

RESEARCH CONFIDENTIALITY AGREEMENT
FOR RESEARCH INVOLVING HUMAN PARTICIPANTS

I _____ have agreed to assist **Lissy (Phyllis) Gloeckler** with the research project entitled "A Study of Teacher-Child Interaction" **IRB #** _____.

I agree not to discuss or disclose any of the content or personal information contained within the data, tapes, transcriptions or other research records with anyone other than the Principal Investigator, Lissy Gloeckler, or in the context of the research team. I agree to maintain confidentiality at all times and to abide by the UNCG Policy and Procedure for Ethics in Research and the UNCG Policy on the Protection of Human Subjects in Research.

Signature of Research Assistant
or Transcriptionist

Date

University of North Carolina at Greensboro

RESEARCH CONFIDENTIALITY AGREEMENT
FOR RESEARCH INVOLVING HUMAN PARTICIPANTS

I, Lissy (Phyllis) Gloeckler, am the lead researcher for the research project entitled "A Study of Teacher-Child Interaction" **IRB #** _____.

I agree not to discuss or disclose any of the content or personal information contained within the data, tapes, transcriptions or other research records with anyone other than in the context of the research team. I agree to maintain confidentiality at all times and to abide by the UNCG Policy and Procedure for Ethics in Research and the UNCG Policy on the Protection of Human Subjects in Research.

Signature of Principal Investigator

Date

APPENDIX E**LEAD TODDLER TEACHER DEMOGRAPHIC DATA SHEET**

Please answer the following questions:

Experience with Children:

1. The number of years or months experience teaching young children _____.
2. The number of years or months experience teaching toddler's age one to two year's old_____.
3. The number of years or months working in this particular classroom of toddlers_____.

Professional Development:

4. Please check the appropriate box indicating your highest level of education.
High School or GED _____ Bachelor's Degree _____
Associates Degree _____ Master's Degree _____
Major or subject of college education_____
5. Number of workshops/conference presentations attended in the past 3 years on children's cognitive development_____.
6. Number of workshops/conference presentations attended in the past 3 years on children's emotional development_____.
7. Number of workshops/conference presentations attended in the past 3 years on children's development of self-regulation skills _____.

Classroom Teachers:

8. The number of teachers who are employed full time in this particular toddler classroom are _____. The number who are part time _____.
9. What is the ratio of teachers to children in this classroom _____?
10. How long have you and the other teacher(s) worked together in this toddler classroom? _____

Children:

11. The number of children enrolled in this classroom is_____.
12. How many of the children in this classroom are:
B-12 months_____ 18-24 months_____
12-15 months_____ 25-30 months_____
15-18 months_____ 30-36 months_____
13. Number of children who are enrolled full time in this classroom_____.
14. Number of children who are enrolled part time in this classroom_____.
15. Culture: Please provide the number of children enrolled who are:
Caucasian_____ Hispanic/Latino_____
African American_____ Other_____
16. Do you use primary caregivers with the children in your classroom?
Yes _____ No _____
17. The number of children with disabilities enrolled in this classroom_____.
18. Are there any children new to this classroom as of last week or this week?
Yes_____ No_____ If yes, how many_____?
19. Are there any children transitioning out of this classroom this week, next week or last week? Yes_____ No_____ If yes, how many_____?
20. Are you in school/college at this time? Yes _____ No_____.
21. What subject or degree are you seeking_____?
22. Do you have another job besides your job at child care?
Yes_____ No_____.

APPENDIX F

CHILD CARE CENTER DIRECTOR DEMOGRAPHIC DATA SHEET

Please answer the following questions.

1. How many children does this child care center serve _____?
2. How many classrooms do you have at this center _____?
3. How many teachers work at this center _____?

4. What ages does this child care center serve? Check all that apply.
 B-12 months _____ 4-5 years _____
 1-2 years _____ 5-6 years _____
 2-3 years _____ After School _____
 3-4 years _____

5. Do you offer a full day program, such as 8am-5pm _____?
6. Do you offer a part day program, such as 9am-12 noon _____?
7. Do you offer a part time program, such as 2 days a week or 3 days a week _____?
8. The cost to parents for a full week of child care for an infant/toddler is _____.

9. The cost to parents for a full week of child care for a preschooler is _____.
10. Hours of operation of this child care center are _____.

11. For infants enrolling at this center at 6 weeks of age, this toddler classroom is their:
 1st _____ 2nd _____ 3rd _____ 4th _____ classroom.

12. At this child care center:
 Classroom # 1 has _____ age children enrolled in it.
 Classroom # 2 has _____ age children enrolled in it.
 Classroom # 3 has _____ age children enrolled in it.
 Classroom # 4 has _____ age children enrolled in it.

13. Is this child care center for profit or non- profit _____.
14. Is this child care center located in an urban or rural area _____.
15. The star rating of this child care center is _____ stars.

APPENDIX G

CAREGIVER INTERACTION SCALE

ID _____

Caregiver Interaction Scale (Arnett, 1989)

Center name _____ Date of observation _____

Teacher name _____ Data collector initials _____

	not at all true	somewhat true	quite a bit true	very much true
1. Speaks warmly to the children	1	2	3	4
2. Seems critical of the children	1	2	3	4
3. Listens attentively when children speak to her	1	2	3	4
4. Places high value on obedience	1	2	3	4
5. Seems distant or detached from the children	1	2	3	4
6. Seems to enjoy the children	1	2	3	4
7. When the children misbehave, explains the reason for the rule they are breaking	1	2	3	4
8. Encourages the children to try new experiences	1	2	3	4
9. Doesn't try to exercise much control over the children	1	2	3	4
10. Speaks with irritation or hostility to the children	1	2	3	4
11. Seems enthusiastic about the children's activities and efforts	1	2	3	4
12. Threatens children in trying to control them	1	2	3	4
13. Spends considerable time in activity not involving interaction with the children	1	2	3	4
14. Pays positive attention to the children as individuals	1	2	3	4
15. Doesn't reprimand children when they misbehave	1	2	3	4
16. Talks to children on a level they can understand	1	2	3	4
17. Punishes the children without explanation	1	2	3	4
18. Exercises firmness when necessary	1	2	3	4
19. Encourages children to exhibit prosocial behavior, e.g. sharing, helping	1	2	3	4
20. Finds fault easily with children	1	2	3	4
21. Doesn't seem interested in the children's activities	1	2	3	4
22. Seems to prohibit many of the things that children want to do	1	2	3	4
23. Doesn't supervise the children very closely	1	2	3	4
24. Expects the children to exercise self control; e.g., to be undisruptive for group, provider-led activities, to be able to stand in line calmly	1	2	3	4
25. When talking to children, kneels, bends, or sits at their level to establish better eye contact	1	2	3	4
26. Seems unnecessarily harsh when scolding or prohibiting children	1	2	3	4