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Babies on Campus: Service to Infants and Families Among Competing Priorities in University Child Care Programs

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Abstract

University early childhood programs attempt to balance a traditional tri-part mission: service to children and families; professional development of caregivers/teachers, clinicians, and researchers; and research on child development, learning, and/or education. Increasingly, infants receive care and education on university campuses, yet little is known about serving this population effectively within large institutions. Three infant programs at major research universities were chosen for this descriptive/comparative analysis of campus programs that have prioritized mission values differently. An adaptation of Bronfenbrenner's Bioecological Systems Theory was used to frame this qualitative study. Analysis uncovered three areas of distinction that provide a means to describe differences and similarities among these programs: (1) who holds the power in influencing the mission values and priorities, (2) the implementation of sensitively responsive care with infants, and (3) family-centered practices.

Introduction

A growing number of American infants spend most of their daytime hours in child care (Kreader, Ferguson, & Lawrence, 2005; Laughlin, 2010). While the early childhood field has recommended practices for birth-to-3 programs (Gerber, Whitebook, & Weinstein, 2007; NICHD Early Childhood Research Network, 2006), little is known about how these recommendations are applied in real settings or how they are experienced by infants and their families.

As demand for birth-to-3 care rises, infant rooms have become increasingly popular in campus-affiliated programs and laboratory preschool programs at colleges and universities in the United States (T. Dunnuck, personal communication, January 30, 2012). One might assume that campus infant programs would provide babies and their families the best care and education experience the field has to offer, with research-based practices and environments, highly qualified professional caregivers and educators, and state-of-the-art learning materials. But is this a given? Colleges and universities struggle to respond to the needs of multiple, often competing, stakeholders with budget constraints both within and beyond their control. Assuring that the needs of children and families served on their campuses are optimally met is certainly challenging amid such demands.

Campus Programs

Campus-affiliated child care programs (then called child development laboratory

programs) began to emerge on U.S. university campuses in the early 1920s. As they evolved, they embraced a three-part mission that continues into the present (Osborn, 1991): to serve as program sites for the professional development of personnel in both child development and early childhood education; to serve as sites for research on various components of both child development and early childhood education; and to serve as model programs for children and families, providing leadership for the early childhood field at the state, local, and national levels (Barbour, 2003; Cutler et al., 2012; McBride et al., 2012; McBride, 2009; McBride & Barbour, 2003).

Nearly all postsecondary institutions juggle competing priorities and seemingly ever-tightening budgets. Campus child care programs, usually supported at least in part by their campuses' budgets, are regularly called upon to justify their value to campus communities, particularly in times of fiscal downturn, and may sometimes be forced to compromise their values and make difficult choices (Cutler et al., 2012). McBride (1996) and Cassidy and Sanders (2001) noted that campus-affiliated early childhood programs find it increasing difficult to focus on and balance all three traditional elements of their mission (professional development, research, and service to children and families) in light of diminishing university resources and decreasing state funding. Keyes and Boulton (1995) noted that in a climate of reduced contributions from their university affiliates, programs are challenged in their efforts to be models of high-quality, affordable, accessible early care and education in their communities.

The principal researcher conducted an earlier study that addressed the broad question, "What is it like to be an infant in a child care center?" (McMullen et al., 2009). The infant-care programs in that sample showed wide variation in the experience of care, and we began to ponder ways that higher education institutions might be contributing to differences among campus-affiliated infant programs in the United States. We wondered how the needs of infants and families fit among other priorities and values of those institutions.

We conceptualize the three parts of the traditional campus-affiliated child care program mission as follows: (1) *professional development* of caregivers/teachers, clinicians, and researchers; (2) *research* about human development, learning, and teaching; and (3) *service* to children, families, and the community. A program must fully address all three elements of the mission in a high-quality setting in order to be a model for other programs and leaders in early childhood on and off campus, as well as various campus audiences (McBride et al., 2012; Reifel, 2003).

The primary bodies of literature examined in this study included those related to university-affiliated programs and to conceptualizations of what infants experience in birth-to-3 programs. The questions guiding this research were generated from concerns that arose during a previous study and those expressed in the literature about efforts to balance the sometimes competing elements of the tri-part mission of on-campus child care programs. The following questions are considered in this paper:

- How is service to infants and families affected (or is it?) if greater priority is given to professional development and/or research?
- Who holds the power in decision making related to these priorities?

Framework for Study

Numerous and varied relationships between and among members in the system of care and education surround individual infants and their families in campus-affiliated programs (McMullen & Dixon, 2009). In campus infant programs, two or more caregivers in an infant room are responsible for addressing the individual care and needs of eight or nine infants and their families. A variety of classroom aides and other adults may also work with and care for the infants throughout the day. Programs that house infant rooms have at a minimum a program director and sometimes other in-house administrators such as curriculum directors. Usually a campus administrator and faculty members from various departments are involved in the program. Distinct norms, values, and cultures define how all these relationships are established and maintained, how lines of communication operate, and who holds power in decision making. To help us consider such complex dynamics, we adapted Bronfenbrenner's Bioecological Systems Theory (1979, 1986, 2004) as the conceptual framework for this study, creating a model of the system of care shown in Figure 1.

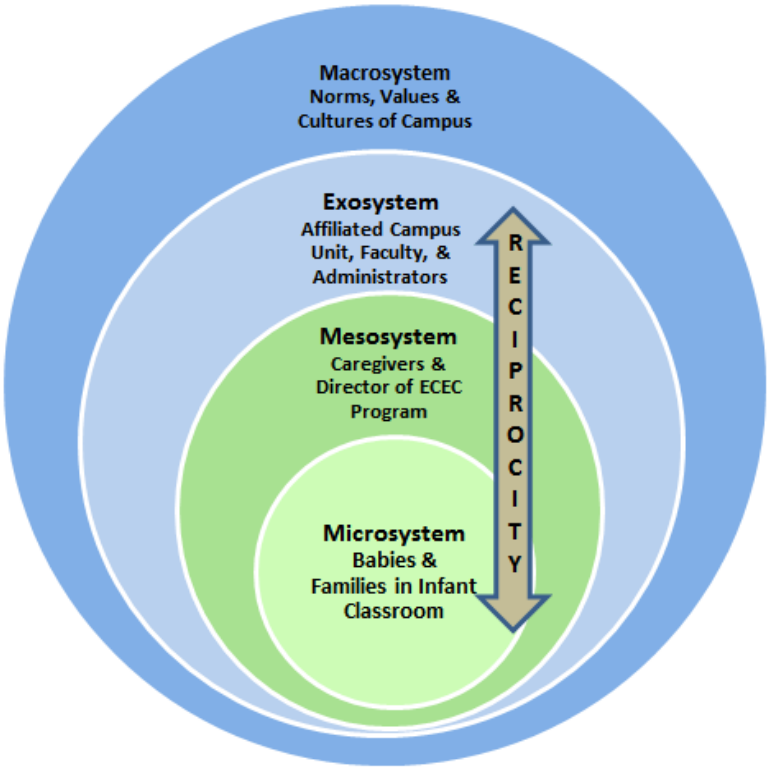

Figure 1. Model representation of campus infant programs indicating reciprocity of relationships and communication in the system, imbedded within the norms, values, and cultures of its macrosystem.

Bioecological Systems Theory posits that the development of the child (or infant) is influenced by several environmental systems (Bronfenbrenner, 1979, 1986, 2004). Bronfenbrenner's model is composed of micro-, meso, exo-, and macrosystem elements. Our adapted model shows infant and family at the center of several nested systems represented by concentric circles. Each circle represents one of these system elements or interactions between lateral systems that have direct and indirect yet powerful influences on the child and family, which, in turn, influence decisions made throughout the system as a whole.

At the heart of this model is our agreement with Lilian Katz's (1999) assertion that multiple perspectives merit consideration in discussions of the quality of care and education provided for young children, including the child's (the infant's, in this case), the family's, the teacher's or caregiver's, and the program director's. Individuals with those perspectives are indicated in Figure 1 within the circles colored in shades of green.

Individuals or entities outside of the program but within the system are shown in blue. The model comprises the following components:

- Microsystem: The infant and family in the infant classroom.
- Mesosystem: Caregivers,[1] teachers, and director in the program.
- Exosystem: Affiliated campus-level administrators, departmental units, and faculty members associated with the infant room in the early childhood program.
- Macrosystem: Norms, values, and cultures imbedded within and throughout the system elements.

The arrow in our system model indicates reciprocity of relationships and communication flow through the system. This model is based on an assumption that the system involves reciprocal relationships among the constituents, with shared power in decision making about policy and practices that translate values into care (e.g., whether adults other than caregivers or parents should be in the infant classroom, or how many can be present at any given time).

We recognize that campus-affiliated programs, like infants, grow and develop in unique contexts (Reifel, 2003). Their missions and roles may be similar, but each program (within its department, university, etc.) determines what factors will be emphasized in its context. Our fundamental assumptions are that (1) a program's values and priorities will directly and indirectly affect the care of infants and their families in the program and (2) relationships between and among participants in university-affiliated infant child care programs will demonstrate greater or less reciprocity in typical communication about mission and roles, and power will be

shared in determining how values are translated into practice.

Methods

Research Design

Although this study primarily employed qualitative analysis, quantitative analyses were also used to aid in describing and comparing the three infant rooms.

The principal researcher spent a minimum of 2 weeks of full days in each classroom and program. Full-day time-sampling data about infants' activities, engagement with others, ability to move about freely, and their general feelings were collected to provide snapshots of their day-to-day experiences. These data provided a sense of the typical daily rhythm in each setting and of infants' typical individual and collective experiences. (See the Appendix.) Time-sampling observations were collected on each baby, every 5 minutes throughout an entire day from arrival to departure. Also recorded were brief but detailed descriptions of what that infant was doing in the moment that a sample was taken.

Qualitative data were collected in each classroom concurrent with and subsequent to time sampling. These data included more detailed observations of individuals and groups, focusing on relationships between and among all members of the community—in particular, infants' interactions with peers, caregivers, and family members, and caregivers' interactions with infants, colleagues, and directors. Formal and informal interviews were also conducted with family members, caregivers, other classroom staff, and directors and administrators at the program and university levels. Documents and artifacts were collected from each classroom and program.

Blending data from multiple sources and utilizing mixed methods allowed for triangulation and confirmation and enabled a comprehensive picture to emerge of the dynamics across each system and among system elements (Creswell, 2009; Merriam, 1998). To further ensure trustworthiness, we engaged in member checking with primary informants and debriefed with multiple colleagues in the field of infant care and education about our conclusions.

Settings

A targeted sample of infant rooms in programs at major research universities in the midwestern United States were selected from a larger sample from an earlier study. The rooms were chosen because preliminary analysis from the earlier work suggested that they were distinct in terms of the programs' prioritizing of research, professional development, and service to children and families.

We characterize the classrooms as the Wildflower Valley Room, the Botanical Garden Room, and the Experimental Greenhouse Room, using metaphors related to growing flowers based upon the primary researcher's overall impressions of each room. The following descriptions provide a simple sketch of each room and offer highlights from evidence used to identify the rooms as prioritizing service to infants and families, research, or professional development. Further details about the rooms are provided in the Findings and Discussion sections.

Wildflower Valley Room

> *Along the hillside of this mountain valley is a beautiful meadow of wild flowers. The colors and sizes of the flowers, their smells, and the textures as you walk among them create a riot for the senses. The meadow attracts butterflies and hummingbirds that stop by off and on for brief visits through the day. The wildflowers follow no real pattern but meander rather aimlessly along the hillside. There is always something new and exciting to explore around the next bend in the valley.*
> (Principal Researcher's Journal; see Figure 2)

Figure 2. Visual metaphor for the atmosphere of the Wildflower Valley infant room.

The Wildflower Valley Room was chosen for inclusion in this study because its mission most clearly prioritized service to children (infants) and families over professional development or research. The program was accredited by the National Association for the Education of Young Children (NAEYC). A daily schedule was posted in the room, which served as a general guide or approximation of when things might happen. There was considerable spontaneity in the Wildflower Valley Room; staff often seized opportunities for activities that arose unexpectedly. Transitions throughout the day were smooth, and one activity flowed naturally into another.

As many as eight infants were with the same two to three paid caregivers at all times (two lead caregivers and one of two consistent aides). Sometimes a student from a local college or the university's early childhood education program would be in the room; one or two students per semester participated on different days or during different shifts.

Document analysis and interviews with the program director and university administrator revealed that the program had a record of commitment to research-based professional development of its caregivers. The program maintained a strong connection with the university for accessing inservice training, workshops, and advanced education; however, staff expressed caution about allowing adults from the university community into the room for study or professional development. The reason given was always some version of an adamantly stated, "If it is not in the best interest of the kids in the program, we are not going to do it." For instance, this program required a highly rigorous screening of the principal researcher before research could begin. One parent from the program advisory board described their reluctance this way, "We are tired of having people at the university think they can just use us for research."

Botanical Garden Room

> *In this beautiful and well-tended garden, a tremendous amount of time is spent not only designing the space but landscaping and keeping it an attractive and inviting place for all to enjoy. It is very peaceful in its beauty and organization. Everything is in its place; there are clear, self-guiding paths to follow; and there are few surprises. Everyone knows what to expect, and no one is rushed, as they proceed from one engaging experience to the next.* (Principal Researcher's Journal; see Figure 3)

Figure 3. Visual metaphor for the atmosphere of the Botanical Garden infant room.

The Botanical Garden Room was included in this study because it appeared to prioritize the professional development of preservice caregivers/teachers and researchers over research or service. Schedules in this multiage infant-toddler room were dependably followed, with predictable, clear signals for transitions from one activity to another. Transitions were handled smoothly and expertly. The morning schedule was duplicated exactly in the afternoon. Two to three professionally educated, paid staff members were always present in the room, caring for eight infants at a time, assisted by several undergraduate students throughout the day. The schedule appeared to be comfortable for many of the infants and accommodated the rotations of university students and their practicum and course requirements.

In addition to her responsibilities to infants and families, the Botanical Garden Room's lead caregiver spent considerable time supervising, mentoring, and documenting the work of the university students. Guidance of preservice caregivers was a serious undertaking for all of the paid staff. This nationally accredited program emphasized what are recognized by the field as "best" practices (Copple & Bredekamp, 2010; Gerber, Whitebook, & Weinstein, 2007; Goldstein, Hamm, & Schumacher, 2011; Lally, Griffin, Fenichel, Segal, Szanton, & Weissbourd, 2004; NICHD Early Childhood Research Network, 2006). Professional staff members were frequently observed to be purposefully modeling ways of talking to infants and other practices for the university students who were present daily and for the occasional volunteer.

Oversight by an affiliated university faculty member, serving as administrator of campus programs, encouraged implementation of research-based practices. Caregivers and the program director, in turn, supported faculty and graduate student research agendas as part of their professional roles.

Experimental Greenhouse Room

The flowers are beautiful, and it sure smells like a garden, but it looks very different from what is found, either in nature or by someone who has carefully cultivated the ground. The environment is hard, harsh, uncomfortable, not a place that recognizes the beauty of the flowers but measures every slight change with scientific detail, rather than heartfelt celebration. (Principal Researcher's Journal; see Figure 4)

Figure 4. Visual metaphor for the atmosphere of the "Experimental Greenhouse" infant room.

The Experimental Greenhouse Room was included in this study because we found that it prioritized research in its mission, followed by professional development of teachers and researchers. Service to infants and families appeared to have lowest priority.

No paid caregivers were employed in the Experimental Greenhouse Room. A total of eight undergraduate students, working in three shifts, took charge of the classroom of eight infants as part of their requirements for an early childhood education course at the university. From an observation booth connected to the room, three graduate students (one per shift) supervised the undergraduate caregivers (three per shift). In total, the infants in this room had 12 different caregivers per day, none of whom were paid professionals and none of whom had teaching credentials. The program director, however, had experience and a degree in the field. The program was not accredited. Several university faculty and graduate students were conducting studies in the program within the time frame of this research.

Experimental Greenhouse Room infants were held to a rigorous and detailed schedule that determined their caregiving routines (eating, sleeping, diaper changing, etc.) and their play throughout the day. Toys and activity options were selected for the infants every 15 minutes, according to a scheduled rotation.

The hallways of the program in which the Experimental Greenhouse Room was housed were indistinguishable from those of most other university/academic buildings. Bulletin boards outside of each room displayed recent research done in the program and its affiliated university department, along with announcements about upcoming research conferences and grant funding. On the classroom walls, charts with schedules and agendas were posted along with goals for each baby related to mastery of developmental skills. On the counters were record sheets upon which the caregivers recorded each baby's accomplishments that day: "Tommy stacked two blocks at 2:40 p.m." or "Janie grasped the beanbag at 3:20."

Participants

Table 1 provides information about the room size, group size, caregiver-to-infant ratio, and qualifications of the lead caregivers in each of the three infant rooms. Key informants represented the different system elements of our model: infants and their parents (microsystem); caregivers, aides, classroom assistants, and program directors (mesosystem); and exosystem members such as university administrators and departmental faculty (Table 2).

Table 1

Infant Room Specifications and Program Staff Qualifications

	Infant Rooms		
	Wildflower Valley Room	**Botanical Garden Room**	**Experimental Greenhouse Room**
Room Specifications			
Typical ratio of caregivers to infants*	1:4	1:3	1:2
Size of room (square feet)	414	782	750
Typical group size (caregivers and infants)	10	12	12
Staff Qualifications			
Program director	Master's**	Master's	Master's
Lead caregiver(s)	Bachelor's Bachelor's	Bachelor's Bachelor's	[undergraduate and graduate students with no ECE backgrounds]

Assistant/aide	CDA	CDA	---

*For the typical ratio, the researcher selected the modal score from observations taken every 5 minutes over several day periods in each classroom.
**Degrees and CDA relate to early childhood education, child development, or a related field.

Table 2

Number of Key Informants Included in the Study

Study Informants	Infant Rooms		
	Wildflower Valley Room	**Botanical Garden Room**	**Experimental Greenhouse Room**
Microsystem participants			
Infants	9*	6**	8
Parents	3	3	2
Mesosystem participants			
Lead caregivers***	2	2	3
Aides and assistants			
Program directors	1	1	1
Exosystem participants			
University administrator	1	1	1
Affiliated faculty	---	---	2

*Eight infants present at any given time; two attended half days and shared one full-time slot; all nine participated in this study.
**Nine infants enrolled; two attended half days and shared one full-time slot; six participated in this study.
***These individuals work in the classroom in a lead or supervisory role.

Table 3 provides descriptions of infants and families in each room. Overall, the programs served 23 infants (10 girls and 13 boys) between the ages of 3 and 18 months, averaging about 48 weeks in age (*SD* = 4.89 weeks). The infants spent an average of 42.96 hours per week in child care (*SD* = 6.05, range = 23.00 to 48.00 hours). Nine of the infants (nearly 40%) were from bilingual or multilingual families.

Table 3

Demographics of Infants and Families in Three Campus Programs

Dimension		Infant Programs		
		Wildflower Valley Room (*n* = 9)*	**Botanical Garden Room (*n* = 6)****	**Experimental Greenhouse Room (*n* = 8)**
Age of infants (in weeks)	Mean *SD* Range	47.11 2.97 26.00 – 60.00	57.50 14.32 39.00 – 79.00	28.25 14.22 12.00 –55.00
Time spent in child care (in hours)	Mean *SD* Range	40.89 9.88 23.00 – 48.00	44.17 4.92 38.00 – 48.00	44.38 6.46 30.00 – 48.00
Gender				
Male		*n* = 1 (11.11%)	*n* = 5 (83.33%)	*n* = 4 (50.00%)
Female		*n* = 8 (88.89%)	*n* = 1 (16.67%)	*n* = 4 (50.00%)
Family Status				
Two parents***		*n* = 9 (100.0%)	*n* = 5 (83.33%)	*n* = 4 (50.00%)
Multilingual		*n* = 4 (44.44%)	*n* = 1 (16.67%)	*n* = 1 (12.50%)
Siblings		*n* = 2 (22.22%)	*n* = 3 (50.00%)	*n* = 1 (12.50%)

*Eight infants present at any given time; two infants attended half days and shared one full-time slot; all nine participated in this study.
**Nine infants enrolled; two attended half days and shared one full-time slot; six participated in this study.
***Other infants had divorced or separated parents with shared custody arrangements.

Regarding family structure, 9 babies had older siblings (40%) and most of them, *n* = 23, lived with two parents (80.65%). All of the infants lived in two-parent households at the time of this study; one couple was in the process of separating. Six infants had attended other child care centers before joining the classroom under study (26.08%). Sixteen had parents who were American [U.S. citizens?], 15 were White, and one was African American. Five infants were Asian and were in the United States with their families from Korea, China, and Taiwan. Another infant had one Malaysian and one Ecuadorian parent. One infant was Persian, with Iranian parents.

Analysis

None of the programs studied specifically articulated all of the three traditional campus child care mission components, but we found that a program's emphasis could be discerned through analysis of documents, observation data, and interview transcripts. We applied our adaptation of Bronfenbrenner's framework to the dynamics of relationships across the systems (or across the spheres of influence) in the three programs,

examining differences and similarities among the infant rooms to discern how programs' priorities relative to the three-part mission might affect micro- and meso-system elements.

Findings and Interpretation

Time-sampling data indicate that infants in the three programs had similar basic experiences in child care, at least as broadly defined. They arrived, made the transition into their environments, had their diapers changed frequently, ate or were fed various snacks, meals, and sometimes bottles. They played, slept, and at some point were greeted by family members and taken from the room. On average, infants spent nearly 9 hours per day in child care. They spent 3.2% of that time with family members, usually during arrival and departure; 14.1% of the time eating or being fed; 3.8% of the time having their diapers changed; 20.0% of the time sleeping (usually taking two or more naps). For the largest portion of their time in care (58.9%), they were awake and able to play or to engage with others.

Numerical scores provide a glimpse into the infants' experiences; considering these data in the context of other information provides a more holistic understanding of their time in child care. McMullen and Dixon (2009) have described the relationships around infants and toddlers in child care as "spheres of influence"; each level of relationship is understood to have an impact on their care. As depicted by the model shown in Figure 1, the entire system affects and is affected by infants and their families.

In none of the three infant rooms did the model in Figure 1 accurately represent the system studied. All three traditional components of campus child care program missions (research, professional development, and service) were evident in each infant room; what varied was the level of emphasis.

Three areas of distinction emerged that provide a means to describe these differences and similarities: (1) who holds the power in influencing the mission values and priorities, (2) the implementation of sensitively responsive care with infants, and (3) family-centered practices.

Power to Make Decisions across Systems

Our major assumption, expressed in the model in Figure 1, was that interactions between and among participants in university-affiliated infant child care programs would be reciprocal to some degree in terms of communication and decision making about mission values and priorities and that the degree of reciprocity would influence the care experienced by infants and their families.

In the Wildflower Valley Room, those closest to infants (including families, caregivers, and program directors) seemed to hold the decision-making power regarding mission priorities. (See Figure 5.) Researchers and students who sought placement for field experiences or student teaching were regularly turned away by this program based upon what staff perceived as "the best interest of the kids." Wildflower Valley caregivers expressed no hesitation during interviews regarding what and who they would "allow" in the room; they seemed fully empowered by their program directors to make these judgments. Some of the determination about limiting outside adults could have been concluded to be related to the small size of the classroom, but this was not the case, as the caregivers welcomed the infants' adult family members into the room at all times.

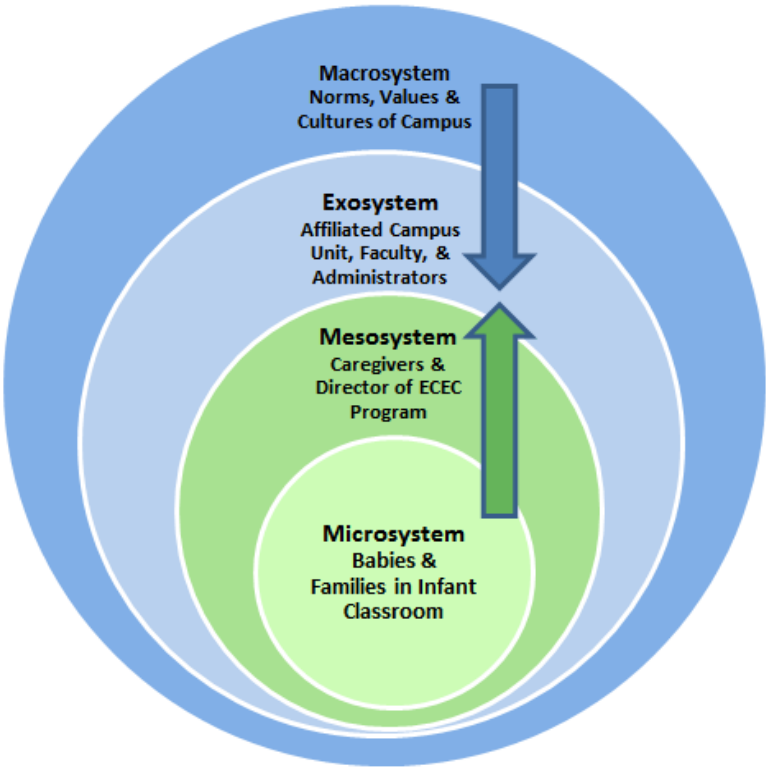

Figure 5. Representation of campus infant programs in Wildflower Valley Room, showing caregivers and directors sharing power and influencing decisions.

We found that the dynamics of the relationships across the systems in the Botanical Garden Room and the Experimental Greenhouse Room programs tended to be top-down, with power and decision making coming from the university and carried out by all adult participants. However, we identified differences between the two rooms. (See Figure 6.)

In the Experimental Greenhouse Room, the caregivers—all undergraduate students—and their graduate student supervisors performed their duties without questioning their program's mission and values, seemingly oblivious to any reason to do otherwise. Analysis of multiple interviews indicated that the status quo was accepted in all areas, including schedule, room arrangement, materials and supplies, curriculum, and relationship between the program and the university department and its expectations. We noted that these policies and practices were invariant from one day, semester, or year to the next, without fail and without question. For example, the following exchange occurred between the principal researcher (PR) and one of the supervising graduate student caregivers (GSC):

> **PR:** Who's responsible for making changes in the room?
> **GSC:** Why would we change it?
> **PR:** Well … say, someone wanted to move the toy shelf there [pointing] to over there for instance, or add some new piece of furniture, or bring in new books or toys.
> **GSC:** The room's been pretty much the same for years, I think. I don't see any reason to change it.
> **PR:** How about the schedules posted each day on the wall?
> **GSC:** Oh, those were made years ago by some professor from the department. Those never change.

Caregivers in the Botanical Garden Room, however, struggled to balance the university's professional development mission with the goal of providing full attention to infants and families. In interviews with these caregivers, we noted expressions of dissatisfaction, bordering on resentment, at what they characterized as their "enormous" role in preservice caregivers' professional development. While recognizing the importance of their support for the professional development of future early childhood professionals, Botanical Garden Room caregivers expressed concern that these tasks, required by the affiliated university department, took time away from their focus on the children and families. Asked if they informed the university administrator about their concerns, they replied "Not really," and "No." Caregivers and the program director indicated that they understood that it was just "part of the job" to go along with what was required while trying to "do the best we can for the kids."

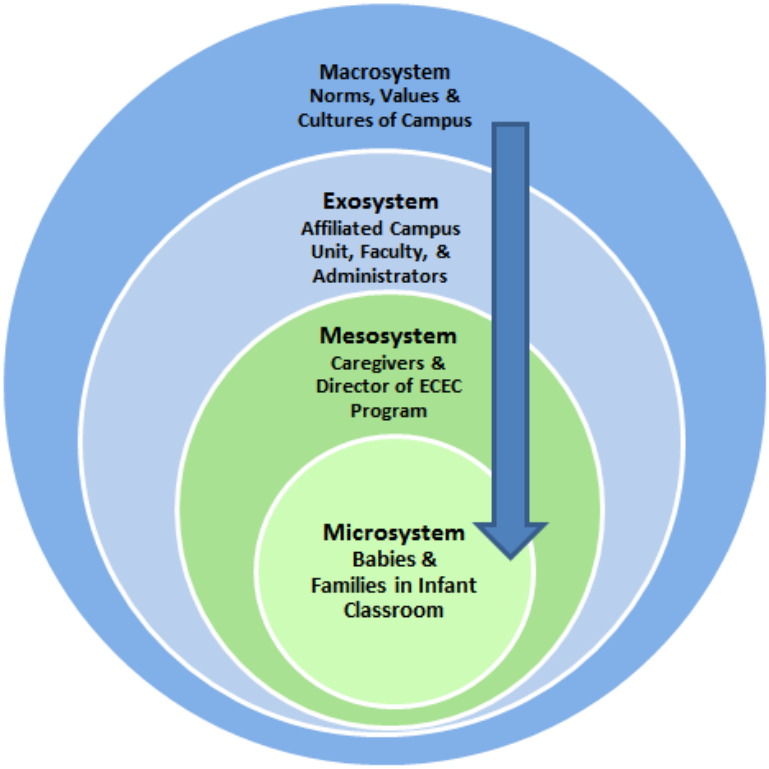

Figure 6. Representation of top-down flow of decision making in the Botanical Garden and Experimental Greenhouse Rooms.

Sensitive Responsiveness to Infants

At the core of current models of "best" or recommended practices in birth-to-3 care and education is the building and maintenance of respectful relationships with infants (Carnegie Corporation, 1994; Graham, Hogan, White, & Chiricos, 2003; NICHD Early Childhood Research Network, 2006). To establish positive relationships with infants, caregivers must respond to the unique needs and interests of each infant in their care. They need to *respond sensitively* (promptly, in direct response to the need communicated, in a style suited to the individual infant's preferences) to babies whose verbal and nonverbal efforts to communicate are best understood by someone who knows them well (Gonzalez-Mena & Widmeyer Eyer, 2008; Kovach & Da Ros, 1998; Lally et al., 2004; Loeb, Fuller, Kagan, & Carrol, 2004; Raikes & Edwards, 2009).

Analyzing data from the three infant rooms in this study relative to sensitively responsive care of infants, we found similarities between the Wildflower Valley and the Botanical Garden Rooms. Both differed in tangible ways from the Experimental Greenhouse Room. In the Experimental Greenhouse Room, infant care practices were standardized and implemented irrespective of the needs or interests of individual infants or the group. The schedule, lessons, plans, and room arrangement remained unchanged from one year to the next. Although the Botanical Garden Room tightly adhered to a schedule, evidence from observation and interviews indicated that the activities offered throughout the day resulted from thoughtful planning by the caregivers, in direct response to needs and interests of individual infants and the group.

Infants in both the Wildflower Valley and Botanical Garden Rooms received individualized care. The caregivers seemed to know them and their families well. Caregivers in these two rooms skillfully helped infants transition into naptime and to ease back into play. We saw evidence that they knew the infants' cries, what the infants were communicating, and how to respond appropriately. They seemed to understand infants' moods and temperaments and, typically, how best to match them at any given time. We noted that Wildflower and Botanical Garden caregivers offered the infants activities, toys, and books from which they could select, that challenged and engaged them without over stimulating them.

Such sensitive responsive care and knowledge of individual infants were not evident in the Experimental Greenhouse Room. In this room, infants were allowed to cry without being comforted, because cries were not recognized as a form of communication in the underlying philosophy of the program. Caregivers chose all activities and maintained a schedule disconnected from the infants' interests or needs (McMullen, 2010).

Family-Centered Practices

Discussions of "family-centered" practices involving young children have until recently been most common in

literature related to pediatric medicine, concerning the special health care needs of young children (Bellin, Osteen, Heffernan, Levy, & Snyder-Vogel, 2011) and in research on early intervention and services for children with special needs (Bruder, 2010; Ziviani, Feeney, & Khan, 2011). Family-centeredness is considered a recommended or "best" practice in both health and special education. Central to the philosophy of family-centeredness is that children (or infants) and their families together create units of focus or care and that developing a relationship with the child in the context of the family unit is critical. A key value in family-centeredness is that family members are the experts in determining the child's or the family's needs and in setting the goals for care and education in collaboration with the professional caregiver (Gonzalez-Mena, 2008; Keyser, 2006). Thus, infant caregivers who engage in family-centered practices work to support families with babies; they do not determine on their own what is best for them.

Family-centeredness goes beyond simply involving parents in classroom life or asking them to volunteer occasionally in the classroom. It requires making families full partners and the key informants in the decisions made about their infants (Keyser, 2006). To be able to engage with families at the level suggested by family-centered practice, caregivers must commit to understanding families of diverse linguistic backgrounds, structures, beliefs, and ethnicities. Family-centeredness implies a respectful form of caregiving (Gonzalez-Mena, 2008).

In our analysis, differences emerged related to the families' experience within the three infant rooms, leading us to consider family-centeredness as a central construct along with sensitive responsiveness to infants. Two of the infant rooms were found to have similar commitments to family-centered practices. The Wildflower Valley Room (in which service to infants and families was viewed as the top priority) and the Botanical Garden (which emphasized support for professional development more than the other two values) had many features of family-centeredness in common. For instance, both of these settings practiced continuity of care, or keeping a group of children together with one group of caregivers. In the Wildflower Valley Room, this was done by "looping"; the entire group of caregivers and children moved into a bigger classroom together each year from the time infants entered the program at 6 weeks until they went to another program at 3 years. In the Botanical Garden Room, a multiage group of infants and toddlers stayed together for 2- to 2½ years. Both models facilitated the growth of strong relationships among the infants, family members, and staff.

All three infant rooms, including the Experimental Greenhouse Room, had "open-door" policies that allowed family members to be in the classroom at any time of day. All encouraged nursing mothers to come and feed their babies; occasionally mothers, fathers, or grandparents would take their infants out for lunch. In the Wildflower Valley and Botanical Garden Rooms, family members regularly joined their babies for lunch in the classroom. This did not occur in the Experimental Greenhouse Room. Some mothers from the Experimental Greenhouse Room did nurse their babies during the day, but unlike mothers in the other two rooms, they always checked their babies out and took them elsewhere, never staying in the room to chat with caregivers.

Caregivers in the Wildflower Valley and Botanical Garden Rooms provided detailed information about infants verbally and in written form at the end of each day, and they sometimes communicated by phone or email throughout the day. Photographs, information about routines, and anecdotes about how infants spent their time in care were all shared with families; parents reciprocated with information about home life. Caregivers in the Wildflower Valley and Botanical Garden Rooms met with families regularly, at least three times a year, presenting them with developmental profiles of the infants and setting goals with the families. We noted none of these practices in the Experimental Greenhouse Room.

The Wildflower Valley caregivers and program directors went a step beyond the family-centered practices that they had in common with the Botanical Garden Room. In the latter, the end of the day was quite clear—family members greeted their infants, conversed with caregivers as they gathered up belongings and children, and left. During this time, caregivers and assistants bustled about tidying up the indoor and outdoor environments, preparing to go home. The caregivers were cordial and polite, but their behavior showed that this was the "end of the day." In contrast, although the Wildflower Valley Room had a pick-up time by which families were to be at the program and in charge of their own children, family members often arrived, put down their belongings, and sat down and engaged with the infants, caregivers, and older children. By policy in this program, approximately a half hour at the end of the day was "family time," built into the caregivers' paid, professional workday to help family members make the transition from work to family and to reunite with their children in a less hurried fashion. This period also facilitated relationships across families in the program and among caregivers and families.

We found no evidence of family-centered practices in the Experimental Greenhouse Room. In both formal and informal interviews, staff members never voluntarily brought the opinions, values, and parenting beliefs of family members about their infants into the discussion. When the principal researcher asked explicitly about "the family's role," an Experimental Greenhouse Room staff member replied,

> We give the family instructions about how to work with their baby at home, how to follow the plan, for say, helping a baby learn something we're teaching. Sometimes we can tell they just don't do it at all, but some parents seem to do what we say. (Researcher's Field Journal)

The Experimental Greenhouse Room staff had no regularly scheduled meetings or conferences with families, although a parent could request to meet with the program director. No effort was made to promote continuity

of care or consistency of caregiving across the group of infants; upon turning 1 year old, they would "graduate" to the next classroom.

Data from observations, interviews, and conversations indicate that the multiple student caregivers in the Experimental Greenhouse Room had little knowledge of the infants' families. For instance, the principal researcher asked two caregivers the same question about a baby who, by name and appearance, seemed to be Chinese, "Do you know if English is spoken at home?" One caregiver responded, "I don't know." The other said, "Uh, I think her mom looks Korean or something, so probably not." When the investigator asked an administrator about the lack of knowledge about the families among the caregivers, the researcher was told this was to protect family confidentiality.

Summary and Conclusions

Our analysis uncovered power differentials across the systems of infant care in terms of how priorities related to the three traditional campus child care values were lived out and who had a voice in determining what would happen at the program level. The primary differences were found to be implementation of sensitively responsive care to infants and implementation of family-centered policies and practices. These differences were most profound in the infant room in which research was the prominent value. A summary of key findings is presented on Table 4.

Table 4

Summary of Comparison of Three Infant Campus Child Care Rooms

	Infant Rooms and Primary Focus		
	Wildflower Valley Room	**Botanical Garden Room**	**Experimental Greenhouse Room**
Elements and Dynamics across System	*Primary Focus: Service to Infants and Families*	*Primary Focus: Professional Development of Caregivers*	*Primary Focus: Research for Faculty and Graduate Students*
Mesosystem Members Caregivers and program directors			
Power across care system (Figures 4 & 5)	Shared; caregivers/director seemed empowered to assert authority to influence system	Decisions were mostly top-down; program director and caregivers seemed to be powerless to influence system	Decisions decidedly top-down, with director and caregivers accepting decisions unquestioningly
Microsystem Members Infants and Families			
Sensitive responsive care to infants	Strong	Strong	Weak
Family-centered practices	Strong, with additional policies to promote family centeredness	Strong	Weak

Our findings do not tell us all we need to know about how to optimize infants' experiences in our campus child care programs—how to ensure that they flourish and achieve overall healthy growth, development, learning, and well-being. In the programs we studied, infants received more sensitively responsive care, and families were more likely to be central to caregiving decisions, when research was not the primary focus. Infants in the Experimental Greenhouse Room, where research was the priority, were not responded to in a sensitive responsive manner (as described in Kovach & Da Ros, 1998; Lally et al., 2004; Raikes & Edwards, 2009), nor did the program follow principles of family-centered care (as described by Gonzalez-Mena, 2008; Keyser, 2006). In other words, this study provides evidence that infants and families may not be served optimally in campus infant care programs where the primary mission is creating spaces for research and researchers.

Furthermore, returning to Lilian Katz's (1999) assertion that early childhood settings are best understood from the perspectives and experiences of the child (infant), family, caregiver, and program director, we are concerned by what we found regarding program decision-making processes related to addressing the traditional three-part mission of campus child care programs. We found that the Botanical Garden Room, while strongly focused on professional development of preservice caregivers/teachers and researchers, also provided sensitively responsive, family-centered care. However, the caregivers and director there felt overburdened by having high numbers of extra adults in the classroom and by the responsibility for oversight and paperwork associated with providing professional development. They expressed concern that this aspect of their role interfered with serving the infants and families in their care, but they felt powerless in asserting their views to their university affiliates. Such feelings of helplessness and powerlessness among highly qualified caregivers can lead to low job satisfaction and burnout, increasing the risk of turnover in early childhood settings (Deery-Schmitt & Todd, 1995; Hale-Jinks, Knopf, & Kemple, 2006; Townley, Thornburg, & Crompton, 1991), which may defeat efforts to deliver continuity of care their program seeks to deliver.

A complex power differential is implicit in the employee/employer relationship when the context of care is the campus center. Some researchers and teacher educators may have a sense of entitlement regarding child care programs on their campuses, feeling that the classrooms should be available to them as sites for research or

the preparation of their students. That sense of entitlement seemed to be taken to an extreme in the research-focused Experimental Greenhouse Room's program where the off-site affiliated departmental faculty determined policies and practices. In contrast, whether or not affiliated faculty felt entitled to use the Wildflower Valley Room, the parents and staff in that program felt empowered to push back and assert what "was in the best interest of the kids."

Although no direct causal links can be made in a descriptive study, we can conclude with confidence that having professionally qualified caregivers made a difference in the experience of the infants and the families in the classrooms in this study. The two infant rooms with professional-level staff, Wildflower Valley and Botanical Garden Rooms, which had primary commitments to service to infants and families and to professional development respectively, exhibited sensitively responsive caregiving and implemented family-centered policies. This finding is consistent with a long history of research demonstrating that the professional development of caregivers, particularly specialized education to work with young children, is related to the quality of care experienced by infants, toddlers, and preschoolers (Arnett, 1989; Burchinal, 2010; Burchinal, Cryer, Clifford, & Howes, 2002; Kreader, Ferguson, & Lawrence, 2005; McMullen & Alat, 2002).

We believe that this study has significant ethical implications for those who are affiliated with child care programs supported wholly or in part by colleges and universities. For example, findings such as the lack of sensitive responsiveness and failure to use family-centered practices in the Experimental Greenhouse Room call into question the practice of staffing a program of infant care and education entirely with preservice students. Furthermore, it is also essential to consider whether highly qualified early childhood educators working in such programs are treated with mutuality and respect by affiliated faculty, as the knowledgeable professionals they are.

Note

1. The term used for the early childhood professional who works in infant rooms varied across the programs examined in this study (i.e., caregivers, teachers, providers). We chose to call this professional "caregiver" and do so throughout this paper. Also, we refer to administrators of child care programs as "directors," although they held various titles, and the university- or campus-level administrator as "administrator."

References

Arnett, Jeffrey. (1989). Caregivers in day-care centers: Does training matter? *Journal of Applied Developmental Psychology, 10*(4), 541-552.

Barbour, Nancy E. (2003). The early history of child development laboratory programs. In Brent A. McBride & Nancy E. Barbour (Eds.), *Bridging the gap between theory, research and practice: The role of child development laboratory programs in early childhood education* (pp. 9-30). New York: Elsevier.

Bellin, Melissa H.; Osteen, Philip; Heffernan, Caitlin; Levy, Judy M.; & Snyder-Vogel, Mary E. (2011). Parent and health care professional perspectives on family-centered care for children with special health care needs: Are we on the same page? *Health and Social Work, 36*(4), 281-290.

Bronfenbrenner, Urie. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Bronfenbrenner, Urie. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology, 22*(6), 723-741.

Bronfenbrenner, Urie (Ed.). (2004). *Making human beings human: Bioecological perspectives on human development.* Thousand Oaks, CA: Sage.

Bruder, Mary Beth. (2010). Early childhood intervention: A promise to children and families for their future. *Exceptional Child, 76*(3), 339-355.

Burchinal, Margaret. (2010, December). *Differentiating among measures of quality: Key characteristics and their coverage in existing measures* (OPRE Research-to-Policy, Research-to-Practice Brief OPRE 2011-10b). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Burchinal, Margaret; Cryer, Debby; Clifford, Richard M.; & Howes, Carollee. (2002). Caregiver training and classroom quality in child care centers. *Applied Developmental Sciences, 6*(1), 2-11.

Carnegie Corporation of New York. (1994). *Starting points: Meeting the needs of our youngest children.* New York: Author.

Cassidy, Jack, & Sanders, Jana. (2001). A university lab school for the 21st century: The early childhood development center. In Jack Cassidy & Sherrye D. Garrett (Eds.), *Early childhood literacy: Programs and strategies to develop cultural, linguistic, scientific and healthcare literacy for very young children and their families, 2001 yearbook* (pp. 1-19). Corpus Christi, TX: Center for Educational Development, Evaluation and Research.

Copple, Carol, & Bredekamp, Sue. (2010). *Developmentally appropriate practice in early childhood programs*

serving children birth through age 8. Washington, DC: National Association for the Education of Young Children.

Creswell, John W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks, CA: Sage.

Cutler, Kay; Bersani, Carol; Hutchins, Pamela; Bowne, Mary; Lash, Martha; Kroeger, Janice; et al. (2012). Laboratory schools as places of inquiry: A collaborative journey for two laboratory schools. *Early Education and Development, 23*(2), 242-258.

Deery-Schmitt, Deanna M., & Todd, Christine M. (1995). A conceptual model for studying turnover among family child care providers. *Early Childhood Research Quarterly, 10*(1), 121-143.

Gerber, Emily B.; Whitebook, Marcy; & Weinstein, Rhona S. (2007). At the heart of child care: Predictors of teacher sensitivity in center-based child care. *Early Childhood Research Quarterly, 22*(3), 327-346.

Goldstein, Anne; Hamm, Katie; & Schumacher, Rachel. (2011). *Supporting growth and development of babies in child care: What does the research say?* Washington, DC: Center for Law and Social Policy & Zero to Three. Retrieved April 28, 2011, from http://main.zerotothree.org/site/DocServer/ChildCareResearchBrief.pdf?docID=3542

Gonzalez-Mena, Janet. (2008). *Child, family, and community: Family-centered early care and education.* Upper Saddle River, NJ: Prentice Hall.

Gonzalez-Mena, Janet, & Widmeyer Eyer, Dianne. (2008). *Infants, toddlers, and caregivers: A curriculum of respectful, responsive care and education*. New York: McGraw-Hill.

Graham, Mimi A.; Hogan, Anne E.; White, Barbara A.; & Chiricos, Christine A. (2003, July). Enhancing the quality of relationships in infant-toddler child care: A developmental process. *Zero to Three,* 14-20.

Hale-Jinks, Claudia; Knopf, Herman; & Kemple, Kristen. (2006). Tackling teacher turnover in child care: Understandable causes and consequences, identifying solutions. *Childhood Education, 82*(4), 219-226.

Katz, Lilian G. (1999, March). *Early childhood programs: Multiple perspectives on quality*. Keynote address at the Fourth International Conference of the World Organization for Early Childhood Education, Hong Kong.

Keyes, Carol R., & Boulton, Pamela. (1995). Campus children's centers: Support for children and families. *Children Today, 23*(4), 18-21.

Keyser, Janis. (2006). *From parents to partners: Building a family-centered early childhood program*. St. Paul, MN: Redleaf Press.

Kovach, Beverly A., & Da Ros, Denise A. (1998). Respectful, individual, and responsive caregiving for infants: The key to successful care in group settings. *Young Children, 53*(3), 61-64.

Kreader, J. Lee; Ferguson, Daniel; & Lawrence, Sharmila. (2005, August). Infant and toddler child care arrangements. *Child Care and Early Education Research Connections, Research to Policy Connections, 1*. Retrieved January 4, 2012, from http://www.nccp.org/publications/pdf/text_628.pdf

Lally, J. Ronald; Griffin, Abbey; Fenichel, Emily; Segal, Marilyn; Szanton, Eleanor; & Weissbourd, Bernice. (2004). *Caring for infants and toddlers in groups: Developmentally appropriate practice.* San Francisco: WestEd.

Laughlin, Lynda. (2010, August). *Who's minding the kids? Child care arrangements: Spring 2005/summer 2006* (Current Population Reports, P70-121). Washington, DC: U.S. Census Bureau. Retrieved January 4, 2012, from http://www.census.gov/prod/2010pubs/p70-121.pdf

Loeb, Susanna; Fuller, Bruce; Kagan, Sharon Lynn; & Carrol, Bidemi. (2004). Child care in poor communities: Early learning effects of type, quality, and stability. *Child Development, 75*(1), 47-66.

McBride, Brent A. (1996). University-based child development laboratory programs: Emerging issues and challenges. *Early Childhood Education Journal, 24*(1), 17-21.

McBride, Brent A. (2009). *Meeting the challenges of lab school functions within the context of campus child care.* Paper presented at the National Association for the Education of Young Children Annual Meeting, Washington, DC.

McBride, Brent A., & Barbour, Nancy (Eds.). (2003). *Bridging the gap between theory, research, and practice: The role of child development laboratory programs in early childhood education.* Greenwich, CT: JAI Press.

McBride, Brent A.; Groves, Melissa; Barbour, Nancy; Horm, Diane; Stremmel, Andrew; Lash, Martha; et al. (2012). Child development laboratory schools as generators of knowledge in early childhood education: Models and approaches. *Early Education and Development, 23*(2), 153-164.

McMullen, Mary Benson. (2010). Confronting the baby blues: A social constructivist reflects on time spent in a behaviorist infant classroom. *Early Childhood Research & Practice, 12*(1). Retrieved September 10, 2012, from http://ecrp.uiuc.edu/v12n1/mcmullen.html

McMullen, Mary Benson; Addleman, Jennifer M.; Fulford, Amanda M.; Moore, Sarah L.; Mooney, Shari J.; Sisk,

Samantha S.; et al. (2009). Learning to be *me* while coming to understand *we*: Encouraging prosocial babies in group settings. *Young Children, 64*(4), 20-28.

McMullen, Mary Benson, & Alat, Kazim. (2002). Education matters in the nurturing of the beliefs of early childhood professionals. *Early Childhood Research & Practice, 4*(2). Retrieved September 10, 2012, from http://ecrp.uiuc.edu/v4n2/mcmullen.html

McMullen, Mary Benson, & Dixon, Susan. (2009). In support of a relationship-based approach to practice with infants and toddlers in the United States. In Donna Berthelsen, Jo Brownlee, & Eva Johansson (Eds.), *Participatory learning and the early years: Research and pedagogy* (pp. 109-128). London: Routledge.

Merriam, Sharan B. (1998). *Qualitative research and case study applications in education: Revised and expanded from case study research in education*. San Francisco: Jossey-Bass.

NICHD Early Child Care Research Network. (2006). Characteristics of infant child care: Factors contributing to positive caregiving. *Early Childhood Research Quarterly, 11*(3), 269-306.

Osborn, D. Keith. (1991). *Early childhood history in historical perspective* (3rd ed.). Athens, GA: Education Associates.

Raikes, Helen H., & Edwards, Carolyn Pope. (2009). *Extending the dance in infant and toddler caregiving: Enhancing attachment and relationships*. Baltimore, MD: Paul H. Brookes.

Reifel, Stuart. (2003). Introduction. In Brent A. McBride & Nancy E. Barbour (Eds.), *Bridging the gap between theory, research and practice: The role of child development laboratory programs in early childhood education* (pp. 1-8). New York: Elsevier.

Townley, Kim F.; Thornburg, Kathy R.; & Crompton, Dwayne. (1991). Burnout in teachers of young children. *Early Education and Development, 2*(3), 197-204.

Ziviani, Jenny; Feeney, Rachel B.; & Khan, Asad. (2011). Early intervention services for children with physical disability: Parents' perceptions of family-centeredness and service satisfaction. *Infants and Young Children, 24*(4), 364-382.

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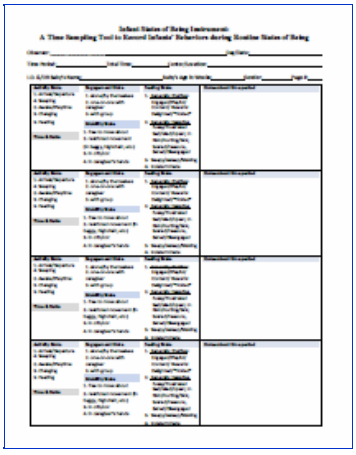
Appendix: Infant States of Being Instrument: A Time Sampling Tool to Record Infants' Behaviors during Routine States of Being



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