

AN ABSTRACT OF THE THESIS OF

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Title: Family-Teacher Relationships and Child Engagement in Early Care and Education.

Abstract approved: _____

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The interactions young children have with teachers, peers, and tasks in early care and education (ECE) settings support development of social and academic skills. The degree to which families and teachers partner to support children's development may contribute to child engagement. The current study aims to expand our understanding of family-teacher relationships and their association with children's engagement in early care and education (ECE). Using data from Oregon's Quality Rating Improvement System (QRIS) Validation Study, a sample of 492 preschool-aged children in center-based care, and their families and teachers participated. The quality of children's engagement with teachers, peers, and tasks was directly observed in the classroom and parents reported on the family-teacher relationship through a survey. Multilevel models were used to examine the association between three central aspects of family-teacher relationships (i.e., attitudes, knowledge, and practices) and four outcome variable representing children's engagement with teachers, peers, tasks, and self-reliance in ECE classrooms. Results indicate a positive significant relation between the practices aspect of family-teacher relationships and children's positive engagement with teachers. Although this association was not causal, it suggests that practices between families and teachers such as collaboration, communication, responsiveness, and family-focused concern, may help teachers and children

engage more positively with one another. There were no other significant findings. Findings are discussed, limitations addressed, and future directions provided.

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Family-Teacher Relationships and Child Engagement in Early Care and Education

by
Hillary R. Lewis

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Hillary R. Lewis, Author

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Family-Teacher Relationships and Child Engagement in Early Care and Education
Chapter 1. Introduction

Over 11 million children under the age of five are involved in some form of non-parental child care or early learning arrangement, and one third of these children attend some sort of center-based program (Laughlin, 2013). The experiences young children have in early care and education (ECE) settings are important to their learning and development. Preschool-age children's interactions with teachers, peers, and tasks help them to develop social and academic skills (Cadima, Doumen, Verschueren, & Buyse, 2015; Chien et al., 2010; Mahatmya, Lohman, Matajasko, & Farb, 2012; Portilla, Adler, Boyce, Ballard, & Obradović, 2014). More specifically, children who positively engage with teachers tend to have higher achievement, lower internalizing behaviors, higher social competence, and a typical pattern of the stress-related hormone cortisol across the day (Cadima et al., 2015; Hamre & Pianta, 2001; Hatfield, Hestenes, Kintner-Duffy, & O'Brien, 2013; O'Connor & McCartney, 2007; Palermo, Hanish, Martin, Fabes, & Reiser, 2007). Likewise, children with more positive interactions with peers, demonstrate greater social competence (Coplan & Abreau, 2009; Ladd, Birch, & Buhs, 1999; Veiga et al., 2017). Children's engagement with tasks and learning activities in ECE settings also supports early academic outcomes such as language and literacy gains (Coolahan, Fantuzzo, Mendez, & McDermott, 2000; Vitiello & Williford, 2016). ADD TRANSITION SENTENCE (KC).

Although there is growing evidence of the importance of children's engagement in the ECE setting for their learning and development, less is known about factors that promote this engagement. The degree to which families and teachers partner in the ECE setting to support the child's development is one potentially important predictor of child engagement. Prior research

conducted with families of elementary school children indicates that parents and teachers can support children's engagement in school by forming strong relationships (McWayne, Fantuzzo, Cohen, & Sekino, 2004). Strong family-teacher relationships include attitudes of respect, positive bidirectional communication, and collaboration (Gonzalez-DeHass, Willems, & Holbein, 2005; Halgunseth, Peterson, Stark, & Moodie, 2009; Izzo, Weissberg, Kasprow, & Fendrich, 1999). Positive and trusting relationships between teachers and parents can improve the success of the child in elementary school (Bryk & Schneider, 2003). The current study extends this work by examining the association between family-teacher relationships and child engagement with teacher, peers, and tasks in center-based ECE.

Chapter 2. Literature Review

Theoretical Perspective: Bioecological Framework

The bioecological framework focuses on the active, bidirectional interactions a developing child has with his/her environment (Bronfenbrenner & Morris, 2006). The Process-Person-Context-Time (PPCT) model recognizes that development takes place in many settings and persons, over time and that this actively influences development (Bronfenbrenner & Morris, 2006). Interactions (i.e., proximal processes) between individuals and their environments, including relations with other people, objects, and symbols, are the driving force of human development (Bronfenbrenner & Morris, 2006). Context refers to the environments, both immediate, such as microsystems and mesosystems, and more remote, such as the exosystem and macrosystem, wherein the proximal processes take place. Finally, time refers to the periods (i.e., microtime, mesotime, and macrotime) these proximal processes occur (Bronfenbrenner & Morris, 2006).

In addition to the home, other environments, such as ECE programs, represent important microsystems for children's development. Children's proximal processes with objects, symbols, adults (who are not their parents), and classmates in this microsystem influence their school readiness skills (Carter Clopet & Bulotsky-Shearer, 2016; Palmero et al., 2007; Williford, Vick Whittaker, Vitiello, & Downer, 2013b). The interactions between these two microsystems, the home and ECE setting, are captured by the mesosystem. The dynamics that transpire in mesosystem, such as family-teacher relationships, may ultimately affect child outcomes, such as engagement in the ECE setting. The current study examines this association empirically.

Child Engagement

Prior research has identified three key aspects of children's engagement - interactions with teachers, interactions with peers, and interactions with tasks (i.e., classroom learning and instructional activities) as the foundation for a child's readiness to learn in a classroom (Downer et al., 2010). This section describes these three aspects of children's engagement and summarizes prior research on their importance to children's social and academic skills.

Positive engagement with teacher. Interactions between preschool children and teachers that are characterized by positive emotional connections and communication are linked with a wide array of positive outcomes for children, including higher achievement, lower levels of internalizing behaviors, typical cortisol patterns, higher social competence, and gains in compliance and executive functioning (Hamre & Pianta, 2001; Hatfield et al., 2013; Palermo et al., 2007; Williford, Maier, Downer, Pianta, & Howes, 2013a). Children play an active role in interactions with teachers. The ways in which young children seek interactions, such as attending to and approaching the teacher, and communicate with their preschool teacher, are associated with increases in their engagement with tasks and peers (Williford et al., 2013a) and are predictors of success in early school years and into late elementary school (Palermo et al., 2007). Finally, children who seek more interactions and conversations with their preschool teachers make greater gains in expressive knowledge (Williford et al., 2013a), likely attributed to the language exchanges taking place during those interactions (Ruston & Schwanenflugel, 2010).

Engagement with peers. In addition to teachers, children's interactions with their peers also contribute to their development in early childhood (Carter Clopet & Bulotsky-Shearer, 2016; Ladd, 2005; Williford et al., 2013b). Key components of these peer experiences include sociability, ability to initiate and maintain interactions, and cooperation (Ladd, 2005). Children

who engage in more cooperative play, demonstrate more prosocial behaviors, and maintain conversations with peers show gains in self-regulation (Williford et al., 2013b), greater social competence (Coplan & Abreau, 2009; Veiga et al., 2017), and gains in language and literacy skills during preschool (Carter Clopet & Bulotsky-Shearer, 2016). These behaviors that promote peer acceptance are linked to children's classroom engagement and achievements (Buhs & Ladd, 2001; Buhs, Ladd, & Herald, 2006; Ladd et al., 1999).

Positive engagement with tasks. Within the ECE setting, children manage social and academic demands through their use of on-task, self-directed, and self-reliant behaviors (Fantuzzo, Perry, & McDermott, 2004). Children learn best when they are actively participating (Klem & Connel, 2004), which requires sustained attention, an enthusiasm and intensity in their efforts, and willingness to engage in activities by taking their learning into their own hands. In early childhood, children who show higher levels of motivation, attention, persistence, and a positive attitude toward learning also show higher levels of positive interactive play behaviors with peers (Coolahan et al., 2000). Important school-related outcomes such as academic resilience, attendance and retention, grades, and achievement scores are predicted by engagement in academic activities (Blair, 2002; Fantuzzo et al., 2004; Vitiello & Williford, 2016).

In sum, there is growing evidence that child engagement with teachers, peers, and tasks in the preschool years contributes to children's early learning and development that help to prepare them for success in elementary school (Downer & Pianta, 2006; Williford et al., 2013a). Thus, it is important to identify factors that contribute to more positive child engagement during the preschool years. The current study contributes to the literature by examining how the ways in which family-teacher relationships are associated with children's engagement with teachers, peers, and tasks in ECE settings.

Family-Teacher Relationships

The current study examines the ways families and teachers partner to support children's engagement in ECE settings. This work is informed by prior research that has often used terms such as "parent involvement," "family involvement," and "family engagement." Although these terms have some similarities, the role of parents and families differ with terms. The subtle shifts in language to "family-teacher relationship" and "family-teacher partnership" in the literature demonstrate movement from a focus on families' involvement or engagement *in* schools, to a more reciprocal dynamic between families and schools in which families are viewed as partners (Forry et al., 2012; Halgunseth, 2009; Sheridan & Kratochwill, 2007). Additionally, the term family, compared to parent, is more inclusive with respect to diverse families. In line with these shifts in terminology, an emphasis on strong relationships between families and teachers is now represented in quality standards for National Association for the Education of Young Children (NAEYC, 2005), Quality Rating and Improvement Systems (Tout et al., 2010), and Head Start (US Department of Health and Human Services, 2008). Even though these quality standards exist, and there is a history of national efforts emphasizing the roles of families in ECE programs such as Head Start, there is limited research on the ways these principles have been applied across a range of ECE programs to understand child engagement (Brown, Knoeche, Edwards, & Sheridan, 2009; Raikes, 2006; Roggman, Boyce & Cook, 2009). Therefore, there is a need to study preschool programs in a variety of center-based settings that also serve children from diverse socio-economic backgrounds, which is not reflected in the literature focused on Head Start populations (Willford, Maier, Downer, Pianta & Howe, 2013).

Effective family-teacher relationships are characterized by embracing a shared responsibility for educating and socializing children (Sheridan & Kratochwill, 2007). The

family-teacher relationship field has evolved in such a way that it has articulated successful relationships between families and their child care providers or early learning teachers to include attitudes, knowledge, and practices that are relational and goal-oriented (Forry, Moodie, Simkin, & Rothenberg, 2011). The current study uses the term “teacher” rather than “provider” because of the focus on center-based ECE programs. The attitudes construct of family-teacher relationships refers to teachers’ “beliefs and values about families and children in their care that inform their work with these families” (Kim et al., 2015, p. 9). This construct includes respect, commitment and caring, empowerment, and openness to change (Forry et al., 2012; Kim et al., 2015). Teacher knowledge refers to a sharing of specific information between teachers and families, such as information about families’ cultural beliefs and practices, values, or home dynamics (Forry et al., 2012; Kim et al., 2015). When teachers know information about families, they can support them in a way that empowers families and offer strategies that reflect the family’s unique needs (Forry et al., 2012; Knopf & Swick, 2007). A teacher’s knowledge of the uniqueness families possess is an important aspect of a strong relationship (Giovacco-Johnson, 2009).

Practices refer to teachers’ “interactions and engagement with families in the ECE setting” (Kim et al., 2015, p.10). Practices include communication, family-focused concern, responsiveness to family’s needs/preferences, and collaboration (Forry et al., 2012; Sheridan & Kratochwill, 2007). Communication between families and teachers regarding a child’s needs, experiences, and development is an important way to ensure continuity for children as they transition between home and school settings (Perlman & Fletcher, 2012). The field has recognized the potential importance of these types of practices for a wide array of child, family,

and teacher or provider outcomes (Kim et al., 2015), but the link between family-teacher relationships and child engagement in ECE settings remains unknown.

Although family-teacher relationships are bidirectional, it is important to consider the family's perception of different aspects of this relationship (i.e., knowledge, attitudes, and practices). This family perception is particularly relevant when considering that families have shared responsibility with teachers for educating and socializing children (Forry et al., 2012; Halgunseth, 2009; Sheridan & Kratochwill, 2007). Strong relationships are reliant on families engaging in ways in which they share suggestions and concerns (Berthelsen & Walker, 2008) so that teachers have relevant information about children they teach. Similarly, the ways in which families perceive teacher's attitudes (i.e., respect, commitment and caring, empowerment, and openness to change) may be critical in their willingness to share information about their child and family. When families feel valued and perceive schools as being sensitive and supportive, they are more likely to participate in school issues (Patrikakou & Weissberg, 2000). Thus, family perception of the relationship is an essential component of the family-teacher relationship (Powell, Son, File, & San Juan, 2010) and is the focus of the current study.

Family-Teacher Relationship and Child Outcomes

Much of the research on the importance of family-teacher relationships and children's development has been conducted in K-12 education settings and has focused on academic outcomes. Collectively, this body of work has affirmed the important role that families play in the educational development of children throughout their formal school years due to their involvement and support (Association for the Study of Higher Education, 2015). The preschool period is a time in which children establish lasting patterns of learning and development (Downer & Pianta, 2006; Vitiello & Williford, 2016; Williford et al., 2013b) that set them up for

success in school. Further, the research has largely focused on the practices component of family-teacher relationships, including ways families and teachers collaborate and communicate (McWayne et al., 2004; Mendez, 2010; Powell et al., 2010), and has not addressed attitudes and knowledge.

Although attitudes and knowledge are less studied in regards to child outcomes, there is reason to believe they are important aspects of a strong relationship that support children's engagement because of previous research documenting their role in high quality family-teacher relationships (Forry et al., 2012; Kim et al., 2015). For example, positive family attitudes toward school were predictive of fewer behavior problems, higher social competence, and higher language and math skills in a kindergarten sample (Rimm-Kauffman, Pianta, Cox, & Bradley, 2003). The current study builds upon this K-12 work to explore how attitudes and knowledge also contribute to child engagement in preschool, which may be an important mechanism through which these early patterns emerge (McWayne et al., 2004).

Research conducted in preschool and pre-kindergarten settings documents the importance of relationship-building practices between teachers and families such as collaboration, communication, respect, and responsiveness to children's cognitive and social/emotional development (Berthelsen & Walker, 2008; Mendez, 2010; Powell et al., 2010). A recent meta-analysis of prekindergarten through grade 12 programs in urban settings found programs with efforts to help teachers and families collaborate together to improve children's academic and behavior outcomes had an effect size of .35 (Jeynes, 2012). Another study found that an intervention to promote collaboration between teachers and parents helped to strengthen Head Start children's social-emotional competencies (Sheridan, Knoche, Edwards, Bovaird, & Kuozyk, 2010). Additionally, when families engaged in more frequent communication, and

shared similar feelings about the child's education in a kindergarten sample, the child had fewer behavior problems, higher competence, and higher language and math ratings, indicating family-teacher relationships can help buffer some of the negative academic and behavioral impacts of poverty (Rimm-Kauffman et al., 2003). Finally, parents' perceptions of teacher's responsiveness in urban pre-kindergarten have been shown to predict higher social and literacy skills, as well as fewer problem behaviors (Powell et al., 2010). The programs in the majority of these studies were early elementary schools, not preschools, and many only examined one or two aspects of practices (e.g., only communication or responsiveness). Further, child academic and socioemotional outcomes are only one piece of the story; engagement, which is an important precursor to academic and social-emotional outcomes (Cadima et al., 2015; Hamre & Pianta, 2001; Palermo et al., 2007), should also be considered.

To date, we are only aware of one study that has directly examined links between family-teacher relationships and child engagement in school settings. McWayne and colleagues (2004) examined family contact with the teacher/school, which partially aligns with the practices (e.g., communication) component of relationships, among 307 low-income, ethnic minority children and their caregivers in urban kindergarten. Parents who had direct and regular contact with the school had children who demonstrated more positive engagement with their peers, adults, and learning (McWayne et al., 2004).

As families and teachers engage in practices such as sharing information and collaborating to set goals for the child, children may also become more engaged with their peers, particularly if the child experiences challenges related to peer sociability, peer assertiveness, and peer communication. Children may be encouraged to develop more positive skills when they are taught and reinforced at both home and school. For example, if the teacher shares with the family

the child's difficulty initiating conversations with peers, families can talk with the child at home about this struggle and practice what the child could say to begin talking to friends in his class if he is feeling nervous. Given the links between practices and child outcomes (Powell et al., 2010; Sheridan et al., 2010) and emerging evidence for the associations with engagement, there is a need to understand the association between practices and child engagement in ECE settings.

Research on other aspects of family-teacher relationships, specifically attitudes and knowledge, is also needed to better understand contributors to child engagement in the ECE setting. A teacher's attitude about, and knowledge of a family, may influence the interactions between the child and teacher in the classroom, and potentially also the child's engagement with peers and tasks. For example, a teacher may display greater empathy toward a child if she knows the child's parents are getting divorced, influencing the ways in which the child is positively engaged with, and communicates with the teacher, which may in turn affect the child's comfort level in engaging with peers and learning activities.

Further, the knowledge aspect of a strong family-teacher relationship may be positively related to a child's engagement in the ECE setting. When a teacher knows information about the family, or child in particular, they can be more intentional about facilitating or offering learning activities in which the child is more likely to have sustained and active engagement, as well as self-reliance. For example, if the teacher is aware of adverse childhood experiences a young child in their class has experienced, they may be more likely to take a trauma-informed approach to teaching such as facilitating learning activities that the child may more actively engage in or benefit from (e.g., yoga, breathing activities).

Current Study

The current study aims to expand our understanding of how practices between teachers and families are associated with children's engagement in early learning settings. It also provides an initial investigation of the association between knowledge and attitudes aspects of family-teacher relationships and child engagement. This study examines three research questions to explore links between three aspects of family-teacher relationships (i.e., knowledge, practices, attitudes), and child engagement with teachers, peers and tasks:

1. How is a stronger family-teacher relationships associated with child engagement with teachers?
2. How is a stronger family-teacher relationship associated with child engagement with peers?
3. How is a stronger family-teacher relationship associated with child engagement with tasks?

Based on prior research with elementary school children (McWayne et al., 2004), I hypothesize that a stronger family-teacher relationship, as defined by practices, is associated with higher levels of child engagement with teachers, peers, and tasks. Given limited research on the attitudes and knowledge aspects of family-teacher relationships, this study poses an exploratory hypothesis that more positive attitudes and more knowledge is also linked with greater child engagement with teachers, peers, and tasks.

Chapter 3. Method

Participants

This study utilized data from Oregon's Quality Rating Improvement System (QRIS) Validation Study. Oregon's QRIS is a voluntary star-rating system for licensed early learning programs that rates programs on standards within five domains of quality standards (Woods & Udell, 2013). The goal of Oregon's QRIS Validation Study was to test the expectation that programs with higher QRIS ratings would have higher observed program quality, stronger family-teacher relationships, and more positive child engagement (Lipscomb, Weber, Green, & Patterson, 2016). The QRIS Validation Study encompassed two inter-related studies. Data for the current paper were drawn from the second study, which examined links between QRIS ratings and child and family engagement in home- and center-based programs (Weber, Lipscomb, Green, Patterson, & Gibbs, 2018). The current analysis only includes the 127 center-based ECE programs, given limited understanding in the field of child engagement in home-based early learning programs.

All programs that applied for a rating on Oregon's QRIS during the time of the second study (August, 2015 - January, 2017) were invited to participate (see Weber et al., 2018 for details). The sample includes 492 preschool children (and their reporting family member), enrolled in 127 centers with 286 teachers working in those classrooms (includes assistant teachers). The sample reflects diversity in child and parent ethnicity, language, and income, and parent education. Table 1 shows descriptive statistics for child and parent demographics.

Table 1

Descriptive Statistics for Child and Parent Demographics

Demographics	Frequency		M	SD	Min.	Max.
	n	%				
Child						
Female	460	51%				
Age (in years)	463		4.56	.67	2.58	6.28
Race/Ethnicity						
White	356	74%				
Latino	126	26%				
African American	20	4%				
Asian/Pacific Islander	19	4%				
Other race/ethnicity	24	5%				
Dual Language Learner	113	23%				
# of Days/Week in Care/Preschool	482		4.21	.78	2.00	6.00
# Hours/Day in Care/Preschool	478		5.50	2.39	2.50	16.00
# Hours/Wk in Care/Preschool	478		23.71	12.35	6.00	64.00
# Months Attended Care/Preschool	470		13.57	12.50	0.00	60.00
Parent						
Female	423	86%				
Age (in years)	434		34.57	7.37	18.41	72.95
Race/Ethnicity						
White	356	74%				
Latino	108	22%				
African American	6	1%				
Asian	15	3%				
Other race/ethnicity	26	4%				
Primary Language						
English	394	80%				
Spanish	78	16%				
Other	18	4%				
Education						
Less than HS	42	9%				
HS equivalent	108	23%				
Some college or AA	158	33%				
BA	88	18%				
Graduate degree	80	17%				
Household Income						
Less than \$25,000	166	34%				
\$25,000 - \$34,999	74	15%				
\$35,000 - \$44,999	38	8%				
\$45,000 - \$54,999	27	6%				
\$55,000 - \$74,999	40	8%				
\$75,000/more	122	25%				
Qualified for Public Assistance	473	39%				

The majority of the teachers (96%) were female with an average age of 39.9 years ($SD = 13.1$ years). English was the language spoken at school by 96% of the teachers. Twenty-five percent of the teachers identified themselves as a racial/ethnic minority. The highest level of education completed by the teacher was a graduate degree (9%), Bachelor's degree (29%), some college/Associate of Arts degree (50%), and high school or less (12%).

Procedure

One random classroom from each participating program was selected to participate. Surveys were distributed to directors/owners and to all of the teachers, assistants/aids, and families in the selected classroom. This study utilizes the family survey; interested parents returned the completed surveys either online, or in a sealed envelope to the classroom teacher. From among the children with parent consent, data collectors randomly chose up to four children at the first child observation visit to participate in child engagement classroom observations.

Each child was observed for an average of four cycles that lasted an average of 10 minutes each. These observations continued across activity settings (e.g., large group, free choice, meals), with the data collector noting the relevant setting(s) for each cycle. Data collectors followed specific guidelines for the types of activities to observe in order to have consistency in the types of activities observed across children and programs. This included two to three observation cycles where free play was the main activity, at least one cycle where the primary activity was in a large group or whole group setting, and one (or zero) cycles where primary activity was routine/transition, meals/snacks, or structured small group or individual time.

Measures

Family-teacher relationships. Family-teacher relationships are measured using the parent-report version (short-form) of the Family and Provider/ Teacher Relationship Quality (FPTRQ; Kim et al., 2015). The FPTRQ parent report measures the parent's perception of the quality of their relationship with their child's ECE teacher. The short form includes 25 items, takes about 5 minutes to complete, and was offered to families in English and Spanish (both with acceptable reliability; Ramos et al., 2014). The short form measures the same three constructs as the full measure (i.e., knowledge, practices, and attitudes). These constructs reflect the parent perceptions of specific knowledge the teachers may have about the family as well as their comfort level in sharing this information, parent perceptions of the teacher's attitudes or beliefs about the family, and the practices through which they interact and engage with teachers in the ECE setting. All FPTRQ items are rated on a 4-point, Likert-type scale, with higher ratings reflecting a more positive family-teacher relationship.

Knowledge. Knowledge is measured by three items in which parents report the extent to which they feel comfortable sharing information about their family with the teacher. Two examples of family-specific knowledge questions are: "How comfortable would or do you feel sharing with your childcare provider or teacher changes happening at home" and "How comfortable would or do you feel sharing with your childcare teacher the role that faith and religion play in your household." The three items are added together for a total knowledge construct score. In the current study knowledge showed good internal consistency ($\alpha = 0.89$).

Practices. Parents also responded to 13 items about practices related to collaboration, communication, family-focused concern, and responsiveness. An example measuring practices is, "Since September, how often have you met with or talked to your childcare teacher about

goals you have for your child.” Another item is, “My childcare teacher asks me questions to show he/she cares about my family.” A third practices items asks, “How often does your teacher ask you about the cultural values and beliefs you want him/her to communicate to your child?” Another item asks parents to state much the following statement is like their childcare teacher, “My childcare teacher uses my feedback to adjust the education and care provided to my child.” The 13 items are added together for a total practices construct score. Internal consistency reliability of practices was excellent ($\alpha = 0.93$).

Attitudes. Parents responded to nine items measuring their perception of teacher’s attitudes related to commitment, understanding context, and respect. An example of an item measuring attitudes is “My teacher is understanding.” Two other items (both of which are reverse-coded) are: “My childcare teacher judges my family because of our faith and religion”, and “My childcare teacher is rude.” Items that are reverse-coded are computed so that higher scores reflect more a more positive family-teacher relationship. These nine items are then added together for a total attitudes construct score. The internal consistency reliability of attitudes was acceptable ($\alpha = 0.77$).

Child engagement. Children’s engagement was measured using the Individualized Classroom Assessment Scoring System (inCLASS; Downer, Booren, Hamre, Pianta, & Williford, 2011). Data collectors attended a two-day training session, led by a certified inCLASS trainer, which included descriptions of the dimensions, practice coding videos, and five reliability videos. To become a certified observer, data collectors had to pass the reliability portion of the training with an 80%. To support internal reliability a small percentage of observations were double coded and consensus scores were reached after the observations. The average agreement was 96%.

The inCLASS rates a preschool child's engagement in interactions with adults, peers, and tasks or learning activities (Downer, Booren, Hamre, Pianta, & Williford, 2011). It includes four 10-minute cycles of observation by trained observers; each observation cycle is followed by a 5-minute coding period. In the current study, each child was observed an average of four cycles ($SD = 0.23$, range 1-5). The observations were conducted in English or Spanish, dependent on the primary language of the classroom. Ten dimensions are scored on a 7-point scale with higher rankings indicating higher quality or more frequency of engagement. These 10 dimensions create four factors (Downer et al., 2010). This study examined three of the four factors of the inCLASS: positive engagement with teachers, positive engagement with peers, and positive engagement with tasks. The negative classroom engagement factor is not relevant to the research questions and therefore omitted. Domain scores were created for positive engagement with teachers and positive engagement with peers by computing the average across cycles for each dimension and then the average of the dimensions with a particular domain. However, the positive engagement with tasks domain was kept as two separate dimensions due to unacceptable reliability as a domain score (this will be further discussed in later sections). The inCLASS measure has been shown to have construct validity in prior research (Downer et al., 2010).

Positive engagement with teachers. Positive engagement with teachers includes two dimensions: (a) positive engagement with teacher (i.e., attunement to the teacher, proximity seeking, and shared positive affect), and (b) teacher communication (i.e., initiates conversation with the teacher, sustains conversation, and uses speech for varied purposes). For example, a child rated high in positive engagement with the teacher may sit in her lap while reading a story together. A high-rated teacher communication example may be a child who describes his math

activity and answers the teacher's questions about the activity. In the current study ($\alpha = 0.80$) the positive engagement with teacher domain displayed good internal consistency reliability.

Positive engagement with peers. Positive engagement with peers includes three dimensions: (a) peer sociability (i.e., proximity seeking, shared positive affect, popularity, perspective taking, and cooperation), (b) peer assertiveness (i.e., positive initiations with peers, leadership, and self-advocacy), and (c) peer communication (i.e., initiates conversations with peers, sustains conversations, and uses speech for varied purposes). A child demonstrating high levels of peer sociability may seek out his friend during free play and greet him enthusiastically when he finds him. A high example of peer communication may be a child who asks her peers who are playing "family" if she can join the game and begins talking to them about who is the mommy and that she wants to be the baby. A child who shows high peer assertiveness when peering at the sensory bin with a few classmates may take the lead and say, "Let's all try to pick out the red beads!" In the current study, positive engagement with peers displayed good internal consistency reliability ($\alpha = 0.88$).

Positive engagement with tasks. Engagement with tasks refers to two dimensions: (a) engagement with tasks (i.e., sustained attention and active engagement), and (b) self-reliance (i.e., personal initiative, independence, persistence, and self-directed leadership). For example, during a science demonstration a child who is highly engaged with the task may be carefully watching what is happening and call out their prediction. A high-rated self-reliance example is a child who is coloring and runs out of paper but goes to find more on his own. In the current study, the positive engagement with tasks domain displayed unacceptable internal consistency reliability ($\alpha = 0.26$), and therefore the two dimensions (i.e., engagement with tasks and self-reliance) were utilized in analyses instead of the task engagement domain.

Covariates. Characteristics of children and families were reported on the family survey and are included as covariates based on previous research in the analysis: child's age in years, gender (0 = *male*; 1 = *female*), non-white race/ethnicity, dual language learner status (0 = *no*, 1 = *yes*), and hours per week child is in care. The survey also included information regarding the household's income the previous year, which was utilized as a covariate in the analyses, and the proportion of cycles the teacher was part of the activity.

Data Analysis

Preliminary Analyses. Descriptive statistics (e.g., mean, standard deviation) for each of the predictor variables (knowledge, attitudes, and practices), and outcome variables (positive engagement with teachers, positive engagement with peers, engagement with tasks, and task self-reliance) are presented in Table 2. The examination of descriptive statistics allowed for the identification of any missing data on predictor and outcome variables, as well as check for outliers, test assumptions, and to determine if the data were skewed. An examination of histograms and skewness and kurtosis descriptive statistics indicated the data were not normally distributed, suggesting the need for Robust Maximum Likelihood Estimator (MLR). A couple of the inCLASS dimensions used to create the outcome variables were skewed and/or kurtotic (assertiveness = 1.3 skew, 1.44 kurtosis; teacher communication = 0.96 skew, 0.63 kurtosis). All of the outcome variables were moderately skewed (between 0.5 to 1.0, or between -1 to -0.5), but not excessively kurtotic (close to 0). Therefore, MLR was used in Mplus because this maximum likelihood parameter estimates with standard errors robust to non-normality and non-independence of observations (Muthén & Muthén, 1998 - 2015).

As expected, there were some missing data for predictor variables and covariates. This may be due to parents skipping questions on the family survey by accident or intentional

omission and/or some missing covariates. Missingness was addressed in the multilevel model by utilizing full information maximum likelihood in Mplus 7th Edition (Muthén & Muthén, 1998 - 2015). There were no missing data for outcome variables.

Correlations were conducted to examine patterns of association and to refine the list of covariates for inclusion in hypothesis testing (Table 2). Specifically, the list of covariates for use in the analytic models was refined based on significant correlations with one or more of the inCLASS outcome variables, to include child age at observation, child gender, child dual-language status, household income, and proportion of cycles the teacher was part of the activity (only for positive engagement with teacher analytic model). These significant covariates were then included in all hypothesis testing models. The correlations and internal consistencies of FPTRQ subscales also affirmed the appropriateness of examining the three aspects of family-teacher relationships as independent predictor variables. These FPTRQ variables were modestly to moderately correlated with one another ($r = .17 - .35$; Cohen, Cohen, Aiken, & West, 2002).

Hypothesis Testing. Multilevel level modeling (MLM) was conducted, due to the hierarchical nature of the data where children (level 1) were nested within classrooms (level 2), by using the COMPLEX command in Mplus (Muthén & Muthén, 1998 - 2015). Compared to traditional least squares regression, MLM accounts for the fact there were several children from the same classroom, which violates a major assumption (i.e., nonindependence) of typical multiple regressions. Standard errors are adjusted in MLM, which appropriately models the structure of the data (Osborn, 2000). The following equations represent the analysis:

Level 1 Model

$$Y_{ij} = b_0 + b_1(\text{Attitudes}) + b_2(\text{Practices}) + b_3(\text{Knowledge}) + b_4(\text{Age}) + b_5(\text{Gender}) + b_6(\text{Dual Language Learner}) + b_7(\text{Income}) + b_8(\text{Teacher Part of Activity}) + r$$

Level 2 Model

$$b_0 = \gamma_{00} + \mu_0$$

Within-classroom variance based on children's characteristics is described in the level 1 equation. For child i in classroom j , the expected outcome, Y , is equal to the classroom average for that outcome b_0 , plus an effect for attitudes, b_1 , plus an effect for practices, b_2 , plus an effect for knowledge, b_3 , plus an effect for his or her average Age, b_4 , plus an effect for his or her gender ($0 = \text{Male}$), b_5 , plus an effect for his or her dual language learner status ($0 = \text{No}$), b_6 , plus an effect for household income, b_7 , plus an effect for the proportion of cycles the teacher was a part of the activity, b_8 , plus error, r_{ij} .

The level-2 equation models between-classroom variance. The research questions in this study do not consider a predictor measured at the classroom level; therefore, there were no predictors in the level-2 model. Further, all covariate variables were child-level, and not classroom level, so were not included in level-2 equation models. The classroom average in each outcome, b_0 , is equal to the grand average, γ_{00} , plus error μ_0 .

This study only considered the fixed effects of the outcome variables, which is the average effect in the entire population of classrooms, as expressed by the regression coefficient. The research questions did not investigate differences between classrooms in the effect of family-teacher relationships variables (i.e., knowledge, practices, and attitudes) on child engagement (i.e., positive engagement with teachers, positive engagement with peers,

engagement with tasks, and self-reliance). Therefore, random effects were not explored in this study. Random effects would test and estimate the variance across the population.

The continuous variables practices, knowledge, attitudes, age, and percent of cycles teacher was part of the child's activity were grand-mean centered according to their respective means across the entire dataset; whereas the dichotomous variables gender, and dual language status were not centered since they have a meaningful zero. Centering of the continuous variables allowed for the intercept to be more easily interpreted, as well as accounted for multicollinearity (Cohen et al., 2002).

First, using Mplus 7.11 edition (Muthén & Muthén, 1998 - 2015), separate unconditional models for each of the outcome variables were analyzed to estimate the proportion of variance at the child and classroom levels. The unconditional models accounted for the nested nature of the data, and allowed for identification of how much variance can be attributed to child-level and classroom-level variance for each outcome. Then, predictors and covariates were included in the models in order to test hypotheses. These linear, fixed-effect models included family-teacher relationship variables at level 1, predicting each of the child engagement outcomes, which resulted in four final models. No predictors were entered at level 2.

Chapter 4. Results

Descriptive Statistics

Table 2 provides descriptive statistics and correlations for predictor, outcome, and covariate variables. Overall, parents reported relatively high mean levels in all three aspects of the family-teacher relationship, with variability in scores reported. There was only one significant correlation between the FPTRQ subscales and inCLASS constructs. Practices were significantly correlated with positive engagement with teachers ($r = .10, p < .05$). Covariates that were significantly correlated with one or more of the outcome variables include child age at observation, child gender, if the child is a dual language learner, household income, and the proportion of cycles the teacher was part of the child's activity. Thus, these variables were included in the analytic models.

Table 2

Bivariate Correlations Between Predictor Variables, Outcome Variables, and Covariates.

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Knowledge	1.00													
2. Practices	.35**	1.00												
3. Attitudes	.17**	.20**	1.00											
4. Engagement with teachers	.04	.10*	.05	1.00										
5. Engagement with peers	.02	-.07	.02	.33**	1.00									
6. Engagement with tasks	-.05	0.22	-.07	.26**	.33**	1.00								
7. Task self-reliance	.01	-.09	.05	.45**	.57**	.16**	1.00							
8. Child age at observation	.03	0.74	-.09	.07	.27**	.25**	.10*	1.00						
9. Child is female	.06	.01	.06	.13*	.022	.04	.01	-.04	1.00					
10. Child is of minority status	.03	.18**	-.24**	.01	-.02	.003	-.05	.07	-.01	1.00				
11. Child Dual Language Learner	-.03	.19**	-.31**	-.11*	-.02	.05	-.11*	.13**	-.05	.56**	1.00			
12. Hrs/wk in this program	-.05	-.23**	.044	-.09	.03	.02	-.01	-.07	.003	-.04	-.09	1.00		
13. Household income	-.01	-.32**	.11*	-.05	.13**	.03	.09*	-.04	-.07	-.32**	-.22**	.39**	1.00	
14. Proportion of Cycles teacher part of activity	.03	0.04	-.022	.25*	-.14**	.12**	-.01	-.01	.03	.01	.03	-.14**	.11**	1.00
M	9.98	40.07	33.64	2.88	2.88	5.18	2.89	4.56	.51	.38	.23	23.71	3/14	.66
SD	1.94	8.34	3.09	.97	.99	.91	1.25	.67	.50	.48	.42	12.35	2.08	.27
N	482	481	474	492	492	492	492	463	460	477	492	478	467	492

Note. Child is of minority status and child dual language learner are dummy coded (0 = no, 1 = yes).

* $p < .05$, ** $p < .01$.

Unconditional Models and Conditional Models

Separate unconditional models were fit for the four outcome variables to assess variance attributable to membership in its cluster (i.e., classroom). The intraclass correlation (ICC) is the ratio of between-cluster variance to the total variance. The ICC's were between 0.11 to 0.61 which indicated the appropriateness of multilevel analysis (Vajargah & Masoomnikbakht, 2015). The ICC for the outcome variables were as follows: Positive engagement with teacher (ICC = 0.37), positive engagement with peers (ICC = 0.29), engagement with tasks (ICC = 0.11), self-reliance (ICC = 0.61). These ICCs indicate that 37% of variation in positive engagement with teacher, 29% of variation in positive engagement with peers, 11% of variation in engagement with tasks, and 61% of variation in self-reliance is accounted for by the classroom clustering.

Next, a series of conditional models were fit to test the hypothesis that the parent's perception of the family-teacher relationship (i.e., knowledge, practices, and attitudes) predicted child's positive engagement with teachers, positive engagement with peers, engagement with tasks, and self-reliance. The conditional positive engagement with teacher model addressed whether aspects of the family-teacher relationship (i.e., knowledge, practices, and attitudes) were associated with child's positive engagement with the teacher in the ECE classroom. Analyses indicated that a child's positive engagement with their teacher was not explained by knowledge and attitudes (Table 3). Conversely, practices were significantly and positively related to children's positive engagement with teacher ($b = 0.12$, $SE = 0.58$, $p < .05$), accounting for the covariates. This significant association indicated children whose parents reported more frequent or more characteristically positive practices between the family and teacher were more positively engaged with their teacher in the classroom compared to children whose parents reported less

positive practices. Conditional models for positive engagement with peers, engagement with tasks, and self-reliance indicated no significant associations with any of the three aspects of the family-teacher relationship (i.e., knowledge, practices, and attitudes).

Table 3

Effects of Family-Teacher Relationships on Child Engagement

	<i>Positive Engagement with Teacher</i>		<i>Positive Engagement with Peers</i>		<i>Engagement with Tasks</i>		<i>Task Self-Reliance</i>	
<i>Fixed Effects</i>	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)	β (SE)	B (SE)
Intercept	5.10** (0.46)	2.79** (0.09)	5.70** (0.56)	2.85** (0.09)	15.28** (2.84)	5.11 (0.08)	2.95** (0.17)	2.89** (0.11)
<i>Covariates</i>								
Child Age	0.11 (0.06)	0.13 (0.07)	0.35** (0.05)	0.45 (0.07)	0.29** (0.05)	0.36** (0.06)	0.26** (0.06)	0.31** (0.08)
Female	0.15** (0.05)	0.25** (0.09)	0.05 (0.05)	0.09 (0.09)	0.05 (0.05)	0.09 (0.09)	0.03 (0.06)	0.05 (0.09)
Dual language status	-0.11 (0.06)	-0.23 (0.12)	0.03 (0.06)	0.06 (0.12)	0.06 (0.07)	0.12 (0.13)	0.01 (0.06)	0.01 (0.12)
Household income	-0.02 (0.06)	-0.01 (0.02)	0.16* (0.06)	0.07* (0.03)	0.07 (0.06)	0.03 (0.02)	0.17** (0.07)	0.07** (0.03)
Teacher part of activity	0.34** (0.06)	1.00** (0.17)	-0.14* (0.06)	-0.45* (0.19)	0.12* (0.05)	0.36* (0.16)	0.01 (0.7)	0.02 (0.19)
<i>Family-Teacher Relationships</i>								
Knowledge	-0.04 (0.05)	-0.02 (0.02)	0.02 (0.05)	0.01 (0.02)	-0.09 (0.05)	-0.04 (0.02)	0.04 (0.06)	0.02 (0.02)
Practices	.12* (0.06)	0.01* (0.01)	-0.04 (0.06)	0.00 (0.01)	0.03 (0.06)	0.00 (0.01)	0.01 (0.06)	0.00 (0.01)
Attitude	-0.01 (0.05)	0.00 (0.01)	0.04 (0.05)	0.01 (0.01)	-0.01 (0.05)	0.00 (0.01)	0.03 (0.05)	0.01 (0.01)

Note: * $p < .05$ ** $p < .01$.

Chapter 5: Discussion

The aim of this study was to understand how relationships among families and teachers may be associated with children's engagement in early learning settings. The study drew upon the bioecological framework which focuses on the active bidirectional interactions between an individual and his/her environment. Specifically, the PPCT model supports the notion that development is influenced by interactions with people, objects, and symbols within significant contexts (Bronfenbrenner & Morris, 2006). Early care and education environments are one of the microsystems in which children develop, and this study empirically examined how dynamics in the mesosystem between families and teachers relate to child engagement in the ECE setting. In accordance with this theoretical framework I hypothesized that stronger family-teacher relationships, as defined by practices, would be positively related to a child's positive engagement with teachers, and peers, and tasks. Further, given limited research on that attitudes and knowledge aspects of family-teacher relationships, I posed an exploratory hypothesis that more positive attitudes and more knowledge is also linked with children's engagement. Results indicate a positive, significant association between family-teacher practices and child's positive engagement with teacher in ECE. There were no significant findings with family-teacher relationship variables in other models.

Child Engagement with Teacher

Findings suggest that when families and teachers engage together in more practices such as collaboration, communication, responsiveness, and family-focused concern, children show more positive engagement with teacher. This finding extends previous work suggesting that practices support children's academic and socioemotional skills (e.g., interactions with peers) (Mendez, 2010; Powell, et al., 2010; Sheridan et al., 2010; Weiss, 2006), and adds that they may

also support children's engagement with their teachers. This finding also builds on previous work identifying associations between practices and child engagement with teachers in an urban kindergarten program (McWayne et al., 2004) with a parallel finding in community, center-based ECE programs. Practices between families and teachers, such as collaboration, communication, responsiveness, and family-focused concern, are positively associated with teacher-child interactions in the classroom. For example, if a teacher demonstrates family-focused concern by asking families questions that show he/she cares about the family, the child may be more likely to seek and enjoy interactions with the teacher. Further, collaboration between families and teachers on goals for the child may inform interactions between the teacher and child in the classroom, as the teacher may be more attuned to potential areas for child growth. Research documents the important role of interactions between preschool children and teachers in positive child outcomes, including higher achievement, lower levels of internalizing behaviors, typical cortisol patterns, higher social competence, and gains in compliance and executive functioning (Hamre & Pianta, 2001; Hatfield et al., 2013; Palermo et al., 2007; Williford et al., 2013a).

The current study did not detect significant linkages between the knowledge and attitudes aspects of family-teacher relationships and children's positive engagement with teachers. This study was exploratory in its consideration of knowledge and attitudes, as most of the prior research has focused on practices such as communication between teachers and parents (Berthelson & Walker, 2008; Mendez, 2010; Powell et al., 2010) and not on parent comfort in sharing knowledge about the family, nor parent perceptions of teacher attitudes (i.e., respect, commitment, and understanding context). Further, prior research on teacher's attitudes and knowledge has not been linked to child outcomes but has rather focused more on their role in family-teacher relationships (Forry et al., 2011). For example, Churchill's (2003) study of

goodness of fit found mutual respect to be an important aspect of relationships between parents and providers. The current study was exploratory in nature in its consideration of possible associations between the knowledge and attitudes components of family-teacher relationships with child outcomes, since these constructs have been identified as important aspects of family-teacher relationships (Forry et al., 2012).

Child Engagement with Peers and Tasks

Although one previous study found associations between aspects of family involvement (i.e., parents have direct and regular contact with the school) and children's positive engagement with peers and tasks (as well as teachers; McWayne et al., 2004), the current study did not yield similar findings. In McWayne et al. (2004), the measure used to assess peer interactions included positive items such as cooperativeness, and helpful behaviors, but also negative items such as aggressive and antisocial behaviors and withdrawn and avoidant behaviors. The current study only considered positive interactions with peers. Further, learning was measured by academic competencies in the McWayne et al. (2004) study, which differs from the engagement with tasks measure in the current study. The McWayne et al. (2004) study took place in an urban kindergarten, which was qualitatively and demographically different than the sample in the current study which considers preschool children in diverse center-based settings. Additionally, this study also did not detect any significant associations between parent comfort in sharing information with the teacher (i.e., knowledge), nor parent report of teacher attitudes and a child's positive engagement with peers, engagement with tasks, or task self-reliance.

Two potential reasons for the lack of associations between family-teacher relationships and children's engagement with peers and tasks include the presence of teachers and activity setting. Family-teacher relationships may indirectly reflect a child's interactions with peers or

their engagement with tasks and self-reliance as children's task and peer engagement often occur without direct involvement from the teacher. In the current study the proportion of observation cycles in which teachers were a part of the activity being observed was high, with an average of 66%. Although this is similar to other studies (Vitiello et al., 2011) and was controlled for in analysis, teacher presence could influence a child's engagement with tasks and peers. When a teacher is present, the teacher's behavior may be a barrier to a child's engagement with peers and activities. A study of 2-3 year olds in Dutch child care found the teacher's behavior during free play, such as walking in and out of children's play area influences child's engagement, can be seen as distracting, and have a disturbing effect on child's play (Singer, Nederend, Penninx, Tajik & Boom, 2014). It may be that observations of children's activities in which teachers are not present would get more variability in peer and task engagement; therefore, making it more likely to pick up on associations between family-teacher relationships and child engagement.

Another possible reason for lack of association between family-teacher relationships and peer engagement, engagement with tasks, and self-reliance outcomes may be the types of activities observed. This study did not explore a more detailed account of the activity settings, and in the effort to observe similar types of activities across children and programs data collectors were instructed to observe two to three of the four observation cycles with free play as the primary activity setting, at least one in whole group, and then the remaining cycles focused on other activity settings (e.g., routines/transitions). The choice to focus on free play and whole group is consistent with previous research which indicates preschool children spend over half their time in free choice and whole group activity settings (Chien et al., 2010; Fuligni, Howes, Huang, Hone, & Lara-Cinisomo, 2012). Positive engagement with peers and tasks is associated with activity settings that encourage more choice such as free choice, free play and outdoor time

(Singer et al., 2014; Vitiello et al., 2011). The materials, play objects, organization of the physical environment, and affordances provided in the activity setting may also impact peer engagement and task engagement more so than teacher engagement (Singer et al., 2014). If a classroom does not provide such affordances, a child might be less likely to be observed engaging with peers or tasks, or being self-reliant.

Finally, it should be noted that the internal consistencies for positive engagement with tasks domain (i.e., dimensions of self-reliance and task engagement) were unacceptable, thus the dimensions were examined as separate outcomes. The low reliability of this domain suggests the inCLASS did not reliably capture the ways in which children manage social and academic task demands in the classroom. Further, only 11% of variation in engagement with tasks is accounted for by the classroom clustering. And therefore variation in engagement may be accounted for by individual child differences.

The current study adds to the body of research on family-teacher relationships through its inclusion of other practices such as collaboration on student goals, responsiveness to family-feedback and sensitivity to cultural diversity, and a focus and precision pertaining to what is happening in the family (e.g., cultural values, changes at home). Consideration of ECE, center-based settings adds to previous work that has focused on Head Start and K-12 settings. It fills a gap in the knowledge about family-teacher relationships and associations with child engagement in the preschool years. When families and teachers engage in stronger practices, children engage more positively with teachers in the classroom.

Limitations

This study contributes to a small literature base on associations between family-teacher relationships and child engagement in ECE. However, there are several limitations that must be

acknowledged. First, the family-teacher relationship constructs in this study are reported by the parent. Although the measure considers families to be diverse, mostly mothers completed the family survey. It is possible fathers may perceive the family-teacher relationship differently than mothers given previous research suggesting different types of father's attitudes toward their involvement (Fagan & Palm, 2004). The single report of the family-teacher relationship in the current study means the parent reports the extent to which they feel comfortable sharing information about their family with the teacher, their perception of the practices they engage in with the teacher, and their perception of the teacher's attitudes related to teacher commitment, understanding context, and respect. The bioecological framework states these mesosystem interactions between the home and school microsystems are bidirectional (Bronfenbrenner & Morris, 2006), but this study only looked at the parent's perceptions of these interactions. Yet, caution in combining parent and teacher reports is warranted in light of evidence that perceptions of the relationships between teachers and parents are not always consistent (Iruka, Winn, Kinglsey, & Orthodoxou, 2011; McGrath, 2007), and there may be greater variability in teacher report of these constructs. Conversely, discrepancy in parent and teacher reports could be illuminating.

Another limitation of this study is that it did not consider teacher covariates. Considering the important role teachers play in child outcomes, there are factors related to the teachers themselves that could affect the relationship between family-teacher relationship and child engagement (Pianta et al., 2005; Xu & Gulosino, 2006). Factors could include the teacher's experience working with diverse families, their own education, number of years teaching, additional training/professional development (e.g., trauma-informed approach; Berthelsen & Walker, 2008; Brown, Harris, Jacobson, & Trotti, 2014; Cheatham & Ostrosky, 2013; McGrath,

2007). Relatedly, overall classroom quality could affect children's engagement. Better academic and behavioral outcomes for children are associated with an environment high in emotional support by teachers (Hatfield, Burchinal, Pianta, & Sideris, 2016), particularly when these levels are consistent (Zinsser, Curby, Denham, & Bassett, 2013). Further, mechanisms such as emotionally supportive behaviors and organizationally supportive behaviors are associated with child engagement, and these associations between children and teachers are bidirectional (Curby, Downer & Booren, 2014).

Next, there was little variability in the family-teacher relationship scales. Although there was a wide range of scores for each of the constructs, the means were high, potentially indicating a ceiling effect. Overall, parents reported high levels in comfort of sharing specific information about their family, practices related to collaboration, communication, family-focused concern and responsiveness, and perception of the teacher's attitude related to commitment, understanding context, and respect. It is possible that more variability in these scores would show stronger associations with child engagement.

Another limitation of the study is the family-teacher relationship measure itself. Although the FPTRQ measures important practices such as collaboration, family-focused concern, responsiveness, and communication between families and teachers, it does not consider daily informal communication between child care staff and families during key times such as pick-up and drop-off. Communication questions asked on the FPTRQ do not ask when and where the exchange of child and family information take place, nor what is shared. Some research suggests communication between families and teachers during morning drop-off is limited (Perlman & Fletcher, 2012). Children may observe these daily informal exchanges of family and child information between families and teachers, which may influence their engagement in the

classroom. A more comprehensive account of the presence and quality of exchange of family and child information, and perhaps the child's observation of such exchanges, might present a more nuanced understanding of family-teacher relationships and child engagement in ECE.

Finally, this study focused on center-based care, and did not consider home-based care. The type of care may be an important contributor to the family-teacher/provider relationships, as well as to child outcomes. Some research suggests differences in the relationship between families and teachers (or providers) related to feelings of closeness and support (Bromer & Henley, 2009; Gibbon, 2002). Further, there is some evidence that suggests there may be differences in child outcomes depending on type of care (Austin, Blevins-Knabe, Ota, Rowe, & Lindauer, 2011; Fuller, Bein, Bridges, Kim, & Rabe-Hesketh, 2017). For example, there were stronger effects in pre-literacy and math concepts for children attending academic programs as compared to home-based programs (Fuller et al., 2017). The inclusion of home-based care could create more variability in the family-teacher relationships.

Future Directions

The current study provides a foundation for future research in the area of family-teacher relationships and their association with child engagement. Future research can build upon findings from this study by considering how other factors such as family characteristics might influence the quality of the family-teacher relationship. Factors that may influence what a family shares with a teacher include their level of comfort, language barriers, and demographic characteristics such as race/ethnicity and socioeconomic status (Berthelsen & Walker, 2008; Patrikakou & Weissberg, 2000; Pena, 2000). Previous research shows families from lower socioeconomic status and of different ethnic background of the teacher are more likely to find it difficult to stay involved, whereas there were higher levels of parent involvement for families

with higher household income (Berthelsen & Walker, 2008). The ways in which families perceive teacher's attitudes (e.g., respect, commitment and caring, empowerment, openness to change) may be critical in their willingness to share information about their child and family. Further, parents tend to have more positive attitudes and increased participation in general school issues (e.g., meeting with school administrators or other parents), and specific school issues (e.g., calling the school to discuss issues specifically related to the child) when they perceive teachers and administrators as sensitive and supportive (Ritblatt, Beatty, Cronan, & Ochoa, 2002). When parents perceive teachers as valuing their input on a child's strengths and challenges, they are more likely to be involved (Patrikakou & Weissberg, 2000), whereas parents who perceive a lack of responsiveness on the part the school are less likely to engage in a family-teacher relationship (Christenson, 2004). Parent gender should also be considered, as Fagan and Palm (2004) suggest father's participation differs in quantity and quality depending on ECE type (i.e., Head Start vs. other types of ECE programs). Further, future research should also consider teacher report of the family-teacher relationship, and match between family and teacher report.

Future research could create a fuller picture of engagement by including negative engagement as an outcome. In the current study a child's interactions with their teacher were limited to positive engagement with teacher (i.e., attunement to the teacher, proximity seeking behaviors, and shared positive affect), and teacher communication (i.e., initiates conversation with the teacher, sustains conversation, and uses speech for varied purposes). It did not include conflict with teachers or peers. Given the significant finding in the association between family-teacher practices and a child's interactions with the teacher (e.g., positive engagement with teacher), a logical next step would be to examine how this might extend to include teacher-child conflict. Conflict between teacher and child is one of the dimensions of negative engagement,

and is associated with behavior problems, less social competence, and academic difficulty in early school years (Pianta & Stuhlman, 2004).

Next, teacher covariates and classroom characteristics should be considered in future studies. Teacher covariates should include factors such as education level or area of study, years of experience, ranking in state early education certification levels, and classroom management style (Berthelsen & Walker, 2008; Brown, Harris, Jacobson, & Trotti, 2014; Cheatham & Ostrosky, 2013; McGrath, 2007). Further, overall classroom quality which captures classroom processes related to emotional and instructional support should be considered in future research (La Paro, Pianta, & Stuhlman, 2004).

Last, future studies should explore the role of child temperament in the association between family-teacher relationships and child engagement in ECE. Previous research indicates teacher sensitivity is a moderator between shyness, peer rejection, and engagement (Buhs, Rudasill, Kalutskaya, & Griese, 2015). It may be that teachers are more attuned to the needs of shy children. Future studies may consider whether the practices in which teachers and families engage, especially those related to goal setting and collaboration, might moderate the relationship between child's temperament and child engagement, including negative engagement as an outcome in ECE setting.

Chapter 6: Conclusion

Child engagement in ECE is associated with a number of positive child outcomes including higher achievement, fewer internalizing behaviors, higher social competence, and gains in compliance and executive functioning (Hamre & Pianta, 2001; Palermo et al., 2007; Vitiello & Williford, 2016; Williford et al., 2013a; Williford et al., 2013b). Family-teacher relationships can promote a positive and trusting relationship between teachers and parents, which can improve child success in an elementary school program (Bryk & Schneider, 2003; Xu & Gulosino, 2006). The current study extends previous research on the association between aspects of family-teacher relationships with school-age children by examining the association between family-teacher relationships and child engagement with teacher, peers, and tasks in center-based ECE. Results indicate that parents' experiences of practices, such as collaboration and communication with teachers, teacher responsiveness to families, and teachers' interest in family concerns, are associated with preschool-aged children's positive engagement with teachers. Findings can inform professional development opportunities to help support teachers in the important work of building and maintaining relationships with families.

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