The role of involved positive parenting and classroom emotional support on preschool children's prosocial and problem behaviors

by

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The student author and the program of study committee are solely responsible for the content of this thesis. The Graduate College will ensure this thesis is globally accessible and will not permit alterations after a degree is conferred.

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ABSTRACT

Children's behavior early in life has many short- and long-term implications. The current study investigates the associations among involved positive parenting, classroom emotional support, and children's problem and prosocial behaviors, using Bronfenbrenner's bioecological theory as a theoretical framework. Additionally, classroom emotional support was analyzed to see if it moderated the association between involved positive parenting and children's behaviors. This study examined Head Start classrooms from the FACES 2009 data set, specifically looking at parent-reported positive parenting, observed classroom emotional support, and parent- and teacher-reported children's problem and prosocial behaviors. Regression and interaction models were chosen to run analyses through STATA. Results indicated that involved positive parenting was significantly associated with parent-reported children's prosocial behaviors, while classroom emotional support was negatively associated with teacher-reported children's problem behaviors. Interestingly, classroom emotional support significantly moderated the association between involved positive parenting and parent-reported children's problem behaviors in an unexpected way, with children who had a mismatch in adult-child interactions (i.e. high involved positive parenting and low classroom emotional support) had more problem and less prosocial behaviors at home. Future studies should investigate the cross-context association of children's behaviors.

CHAPTER 1. INTRODUCTION

Adult-child interactions are important factors in children's early development. Early adult-child interactions provide children with love, support, guidance, and a sense of security (Hamre, 2014). Parents and teachers are key adults in children's lives in their early years. Early parent-child interactions are associated with children's concurrent and later social and emotional development (Treyvaud et al., 2009). Specifically, more positive parenting has been associated with less aggression in children (Kawabata, Alink, Tseng, Van Ijzendoorn, & Crick, 2011), while less positive parenting has been associated with anxiety and withdrawn behavior in children (Treyvaud et al., 2009). Teacher-child interactions are also associated with children's early social and emotional development (Merritt, Wanless, Rimm-Kaufman, Cameron, & Peugh, 2012). Classrooms that encourage emotional and social competencies promote children's emotional understanding, social problem-solving skills, and overall prosocial behavior (Bierman et al., 2008). These adult-child relationships may be particularly important for children from low-income families, as the parent- and teacher-child relationships can lower risks for negative outcomes amongst children in poverty (Mistry, Vandewater, Huston, & McLoyd, 2002).

Children's early social and emotional development has the potential to set them on positive or negative long-term trajectories (Campbell, Shaw, & Gilliom, 2000; Webster-Stratton, & Taylor, 2001). Specifically, early problem behaviors have been associated with negative outcomes that carry into elementary school (Merritt et al., 2012) and into adolescence (Asendorpf, Denissen, and van Aken, 2008). For example, children with withdrawn tendencies are at a higher risk of experiencing anxiety, depression, peer rejection,

and academic difficulties (Rubin, Coplan, & Bowker, 2009). Additionally, children with aggressive behavior in preschool were more likely to be viewed as aggressive, have difficulty keeping a full-time job, and have more conflictual relationships once in adulthood (Asendorpf, Denissen, and van Aken, 2008). Children from low-income families may be at particular risk, as they are reported to be at a higher risk of more problem behaviors and less prosocial behavior (Huaqing Qi, & Kaiser, 2003). Understanding risks of low-income children and their adult interactions can potentially allow understanding in identifying possible points of intervention for these children.

On the other hand, children with prosocial skills are more likely to experience positive outcomes throughout life (Bornstein, Hahn, & Haynes, 2010). Children who had better social skills in preschool were at a lower risk of aggressive and withdrawn behaviors once in adolescence (Bornstein et al., 2010). Considering the long-term implications of these types of behaviors in early childhood, it is important to consider how interactions with parents and teachers are associated with these behaviors.

Using a process-in-context perspective from Bronfenbrenner's bioecological theory (Bronfenbrenner, 1992), the current study examines associations among positive parenting, emotional support in classrooms, and children's behavior in both at home and in the classroom. Further, very few studies have examined how adult-child interactions in one context may moderate the associations between adult-child interactions and children's behaviors in the other context. To help address this gap in the literature, the current study looked at how high classroom emotional support may help serve as a buffer for children when involved positive parenting is low.

In order to conduct this study, data from the FACES 2009 data set was chosen for analyses. This is a nationally represented data set, collected from 60 Head Start preschool programs. The FACES 2009 data set was ideal for addressing the current research questions in this study because classroom observations, parent-reported parenting techniques, and child behaviors in both the home and classroom were all accounted for during data collection. These reasons made the FACES 2009 data set the ideal data for this study.

CHAPTER 2. LITERATURE REVIEW

The aim of the current study is to examine how involved positive parenting and classroom emotional support are associated with children's problem and prosocial behaviors. Previous literature has reported positive parenting and classroom emotional support as being associated with young children's behavior (Campbell, Shaw, & Gilliom, 2000; Webster-Stratton, & Taylor, 2001); however, these studies rarely consider how adult-child interactions in one context are related to children's behavior in the other context. Bronfenbrenner's bioecological model suggests adult-child interactions in different contexts may influence children's behavior in other contexts (Bronfenbrenner & Morris, 2006). In addition, the current study investigates how classroom emotional support might serve as a buffer for children experiencing low positive parenting.

Children's Behaviors

Problem Behaviors

During early childhood, children begin exploring new ways to engage and interact in their environment and with those around them (Bronfenbrenner & Morris, 2006). When children engage in negative or unwanted ways this impacts their adult and peer social relationships (Coplan, Prakash, O'neil, & Armer, 2004). The current study defines and examines consequences of two types of problem behaviors: withdrawn and aggressive. While the occasional withdrawn or aggressive action can be considered fairly normal for children in preschool, it is necessary to address the possible consequences when these behaviors are conducted on a frequent basis.

The working definition of withdrawn behaviors, used in this study can be described as the following:

"... the tendency to avoid the unfamiliar, either people, places, or situations. Though withdrawal, or avoidance, can be the result of a temperamental tendency toward inhibition to unfamiliar events, anxiety over the anticipation of a critical evaluation, or a conditioned avoidant response, often called a phobia, can produce withdrawal" (Kagan, 2016).

Withdrawn behaviors can have many negative outcomes for preschool-aged children. Immediate consequences of withdrawn behaviors for preschool-aged children are rejection or a hard time engaging in peer relationships (Coplan, Prakash, O'neil, & Armer, 2004). Often times children with anxiety, especially when confronted with uncomfortable situations (i.e., peer conflict), resorted to reserved behavior or parallel play (Coplan et al., 2004). This lack of direct peer-play created feelings of negative self-worth for children with withdrawn behaviors, that led to more social anxiety and fewer peer interactions. Feelings of negative self-worth and social anxiety may continue to discourage children from engaging in social interactions, thinking that something is wrong with *them*, resulting in the fear of rejection and victimization (Rubin, Burgess, & Coplan, 2002). These immediate consequences of children's social "phobia", continue to reinforce children's willingness to engage in peer-play and therefore, perpetuating feelings of social anxiety (Coplan et al., 2004).

Aggressive behaviors have also been shown to predict negative outcomes for children (Campbell, Shaw, & Gilliom, 2000; Parker & Asher, 1987) Aggressive behavior for the purposes of this paper is defined as an "act directed toward a specific

other person or object with intent to hurt or frighten, for which there is a consensus about the aggressive intent of the act" (Shaw, Gilliom, Giovannelli, 2000). Problem behaviors in preschool, especially those that persist, are associated with aggression, hyperactivity, and negative school outcomes later in life (Campbell et al., 2000; Tremblay et al., 2004). When children displayed aggressive behaviors, they had a harder time "fitting in" and developing proper prosocial skills, putting them at a higher risk of dropping out of school and engaging in criminal activity (Parker & Asher, 1987). Children who had aggressive behaviors in early life seemed to "crystalize" these behaviors by the age of 8, adding an additional layer of difficulty in intervention programs implemented past this age (Webster-Stratton, & Taylor, 2001). Webster-Stratton & Taylor (2001) make the case that addressing these problem behaviors early on could help the intervention process and deter delinquent behavior later in life. Aggressive behavior not only impacts the child's development but also parent interactions with the child. A study accounting for stress levels of families with children who frequently have aggressive behavior reported that child's aggressive behavior was associated with parents' feeling that they had a negative social life, less positive feelings about parenting, and more stress related to the child (Donenberg, & Baker, 1993).

From the literature, it is clear that both withdrawn and aggressive behaviors are associated with negative outcomes for children in early childhood. Due to both withdrawn and aggressive behaviors resulting in negative outcomes for children, the remainder of the study will interchangeably address aggressive and withdrawn behaviors collectively, as child problem behaviors.

Prosocial Behaviors

Early childhood is also a time for children to develop prosocial skills that encourage positive social interactions (Bronfenbrenner & Morris, 2006; Sebanc, 2003). Eisenberg, Fabes, & Spinrad (2006) defines prosocial behaviors in childhood as "voluntary behavior intended to benefit another". This can be seen in preschool children through sharing, cooperating, taking turns when interacting with others, or showing empathy (Eisenberg, Fabes, & Spinrad, 2006). Prosocial behaviors in preschool children are associated with positive peer interactions, while children with aggressive behavior had more peer conflict (Sebanc, 2003). In addition to peer relationship benefits, prosocial behaviors have long-term benefits as well. Early prosocial behavior can set children up for positive outcomes later in life (Guerra & Bradshaw, 2008). Specifically, prosocial skills are associated with more school readiness, academic achievement, and positive peer relationships (Denham et al., 2003). Considering the impact problem and prosocial behaviors in childhood have on life trajectories, it is important to understand how adult-child relationships encourage prosocial behavior and discourage problem behaviors early in life.

Involved Positive Parenting

Much of literature has investigated how parenting practices are associated with children's behaviors and outcomes (Kerr, Lopez, Olson, & Sameroff, 2004; Treyvaud et al., 2009). This study is specifically interested in how involved positive parenting (i.e., parenting that encourages child, spends quality time with child) is associated with preschool children's problem and prosocial behaviors. When parenting is positive, warm, and sensitive, preschool

children have greater social-emotional competence (Treyvaud et al., 2009). When mothers

are involved and use positive parenting practices child outcomes are better. For example,

mothers with low parental stress and positive parenting were found to have reported more

positive behaviors in their preschool-aged children (Healey, Flory, Miller, & Halperin, 2011).

Not only does parent stress and behavior matter for parent-reported children's prosocial

behaviors, but teacher-reported children's behaviors are also impacted by parents (Anthony

et al., 2005). In a sample of preschoolers in both private and Head Start preschool

classrooms, teachers reported more problem behaviors and less prosocial behaviors when

parenting stress was high (Anthony et al., 2005). Additional evidence found less physical

punishment and more warmth from parents was associated with more prosocial behaviors

and fewer aggressive behaviors (Kerr, Lopez, Olson, & Sameroff, 2004). Children also had

more self-control, communication skills, and nurturance abilities when parents let their

children be independent but stood firm when disciplining (Baumrind, 1967; Dunham,

Renwick, & Holt, 1991).

It is important to point out that positive parenting practices have also been shown to

have more positive outcomes for children who are at higher-risk for problem behaviors

(Pasalich, Dadds, Hawes, & Brennan, 2011). Across literature, preschool-aged boys are

typically seen to have more problem and less prosocial behaviors compared to girls (Ewing

and Taylor, 2009; Pasalich et al., 2011); however, boys with high callous-unemotional traits

were found to have fewer conduct problems when parents used warm parenting techniques

(Pasalich et al., 2011). Parents encourage children to be assertive and have less feelings of

sadness when they refrain from hostile child interactions and allow autonomy to be

developed in children (Denham, Renwick, & Holt, 1991). These findings are important, as

they give insight to ways parents can positively influence their children, who may be at more likely to have problem behaviors (i.e., preschool boys, compared to preschool girls).

These parent-child interactions have also been shown to have lasting effects into adolescence and adulthood. Adolescents who experienced parental warmth and affection during preschool were found to be less likely to engage in risky behavior (i.e., becoming pregnant as a teenager) and more positively related to academic competence ("Child Trends Databank", 2002). Inconsistent parenting, however, has been associated with more problem behavior (Campbell, 1995). A study done by Williams and colleagues (2009) found that children with parents who had positive parenting styles in preschool saw a decline in internalizing behaviors into childhood and adolescence. Yet, children with parents who were permissive had more internalizing and more externalizing behavior throughout childhood and adolescence (Williams et al., 2009).

The current study focuses on involved positive parenting in order to discover how positive parenting is associated with problem and prosocial behaviors in children. As discussed previously, it is clear that literature reflects positive short- and long-term outcomes for children with parents who have positive parenting techniques. However, when parent-child interactions were more positive, children had less teacher-reported problem behaviors (Mistry, Vandewater, Huston, & McLoyd, 2002). The current study furthers the literature by investigating not only how involved positive parenting is related to children's home behaviors but also classroom behaviors.

Classroom Emotional Support

Another factor associated with child behavior is classroom emotional support. For the purposes of this study, classroom emotional support can be defined as preschool classrooms that encourage social-emotional environments. Teaching strategies can aid in creating this positive environment when teachers are trained in areas such as: emotion coaching, induction strategies, and problem-solving dialogue (Bierman et al., 2008). Children's emotional understanding and social problem-solving skills had statistically significant effect sizes when teachers were equipped with these teaching strategies (Bierman et al., 2008). Literature has revealed that teacher-child conflict was associated with aggressive behaviors, especially in boys, while teacher-child closeness was predictive of academic achievement for girls (Ewing and Taylor, 2009). The teacher-child interaction has frequently been studied to understand child behaviors in preschool classrooms. Teacher engagement was found to be associated with child behavioral engagement, self-control, and better work habits (Rimm-Kaufman et al. 2009). Children exhibit more positive school outcomes when teachers are supportive, trustworthy, and non-confrontational (Baker, Grant, & Morlock, 2008). These findings further prove that teacher-child interactions are associated with child behaviors.

When trying to understand teacher-child interactions, it is important to note the environment that preschool teachers create for their students. Classroom emotional support is a typical factor in creating the preschool environment. Teacher emotional support is associated with lower instances of child aggression and more self-control (Merritt, Wanless, Rimm-Kaufman, Cameron, & Peugh, 2012). Children who are at-risk for school problems , in particular, may benefit from the higher classroom support (Downer, Rimm-Kaufman, & Pianta, 2007). Children with depressive mothers were found to have low prosocial skills

upon Head Start entry; however, classroom environment improved prosocial skills for these children (Johnson, Seidenfeld, Izard, & Kobak, 2013). A study by Hamre & Pianta (2005) compared how at-risk children performed in high emotional support classrooms versus low emotional support classrooms. They found that children in high emotionally supportive classrooms had better-reported teacher-child relationships and more positive academic outcomes, while children in less emotionally supportive classrooms had poorer achievement ratings and more conflict with their teachers (Hamre & Pianta, 2005). Thus, considering the influences that high-quality classrooms have on child behavior it is beneficial to provide emotional support within the preschool classroom.

Given that previous research identifies an association between child behavior and classroom environment, the current study furthers the literature by examining a moderation model, determining if classroom emotional support can serve as a buffer for children not experiencing involved positive parenting interactions, thus positively influencing child behaviors. Examining classroom social support and how it moderates the association between involved positive parenting and child problem behaviors could potentially lead to intervention practices that can help improve child outcomes.

Behavior and Children in Poverty

Children in poverty are at a higher risk of having more problem and less prosocial behaviors (Huaqing Qi, & Kaiser, 2003; Mistry et al., 2002). Huaqing Qi & Kaiser (2003) conducted a review of the literature on the prevalence and risks of problem behaviors among low-income preschool children. Additionally, children from low-income families may be at risk for having less positive parent-child interactions (Huaqing Qi, & Kaiser, 2003) and low-

quality emotional support in the preschool classroom (Fantuzzo, Bulotsky-Shearer, McDermott, & McWayne, 2007). Children in low-income families were found to be more likely to have parents who used harsher parenting, had a weaker network of support, and had less prosocial skills developed (Huaqing Qi, & Kaiser, 2003). Additionally, children in poverty with low-quality classrooms were at a disadvantage of developing prosocial skills and academic competencies (Fantuzzo et al., 2007). It is important to continue studying low-income children, as they are at a higher risk of negative behaviors. Huaqing Qi & Kaiser (2003) contributed all of these as risks predictive of problem behaviors in preschool-aged children. The current study used the FACEs 2009 data set collected data from 60 Head Start classrooms which consist of many families in poverty. Nearly all of Head Start children come from low-income families. Sixty-two percent of families in this study sample were living in poverty at the time of data collection.

Theoretical Framework

A majority of this study focuses on how contexts are associated with child behaviors. Children are shaped early on by their environment and the interactions they have within their environments. Bronfenbrenner's bioecological theory was chosen as the theoretical framework, used to guide this study in building research and interpreting results. A key principle in Bronfenbrenner's bioecological theory (Bronfenbrenner, 2006) goes in depth on environmental interactions and the processes that children go through that impact their developmental growth. Although systems (micro-, meso-, exso-, and macro-) are a large part of Bronfenbrenner's bioecological theory, concentrating on the processes of interactions and development is helpful to understand how child interactions influence their behaviors and

overall development. The current study will focus on understanding proximal processes in two key contexts in children's lives.

   Proximal processes. Bronfenbrenner's bioecological theory focuses in large on proximal processes. Proximal processes are defined as the interaction between an individual and another person. Bronfenbrenner stated that interactions directly affect the development of the individual (Bronfenbrenner & Morris, 2006). Children are influenced by their immediate environment that they engage in on a daily basis. This shapes the individual into how they engage, interact, and function within their environment and their society. It is how they "make sense of their world" (Tudge, Mokrova, Hatfield, and Karnik, 2009). Bronfenbrenner's bioecological theory aids in the understanding of this study by suggesting that *context* is what determines an individual's behavior. How children behave at home is associated with their home environment (involved positive parenting), while how they behave in school is associated with their classroom environment (classroom emotional support). The question that this study poses, is can these separate contexts influence child behavior in different environments. Analyses were run to test if classroom emotional support could buffer the effect of low involved positive parenting.

<p style="text-align:center">Current Study</p>

   The current study looked at preschool-aged children and how involved positive parenting and classroom emotional support were associated with children's behaviors in preschool. Specifically, this study aims to answer the following questions: (RQ1) *how is involved positive parenting associated with preschool children's prosocial and problem behaviors (at home and in the classroom)?* (RQ2) *how is classroom emotional support*

associated with child prosocial and problem behaviors (at home and in the classroom)? and

(RQ3) *how does classroom emotional support moderate the associations among involved*

positive parenting and child prosocial and problem behavior, (at home and in the

classroom)?

It is expected that highly involved positive parenting will be associated with fewer

reported problem behaviors and more reported prosocial behaviors in children, both in the

home and in the classroom. High classroom emotional support is expected to be positively

associated with prosocial behavior and negatively associated with problem behaviors, both in

the home and in the classroom. It is also hypothesized that high classroom emotional support

will moderate the association between involved positive parenting and child behaviors, in

that children who experience less positive parenting and who are in classrooms with high

emotional support will have fewer instances of problem behaviors and more instances of

prosocial behaviors, compared to children who experience less positive parenting and are in

classrooms with low emotional support (both in home and classroom reported behaviors).

Children who experience more positive parenting are expected to have fewer instances of

problem behaviors and more instances of prosocial behaviors regardless of classroom

emotional support.
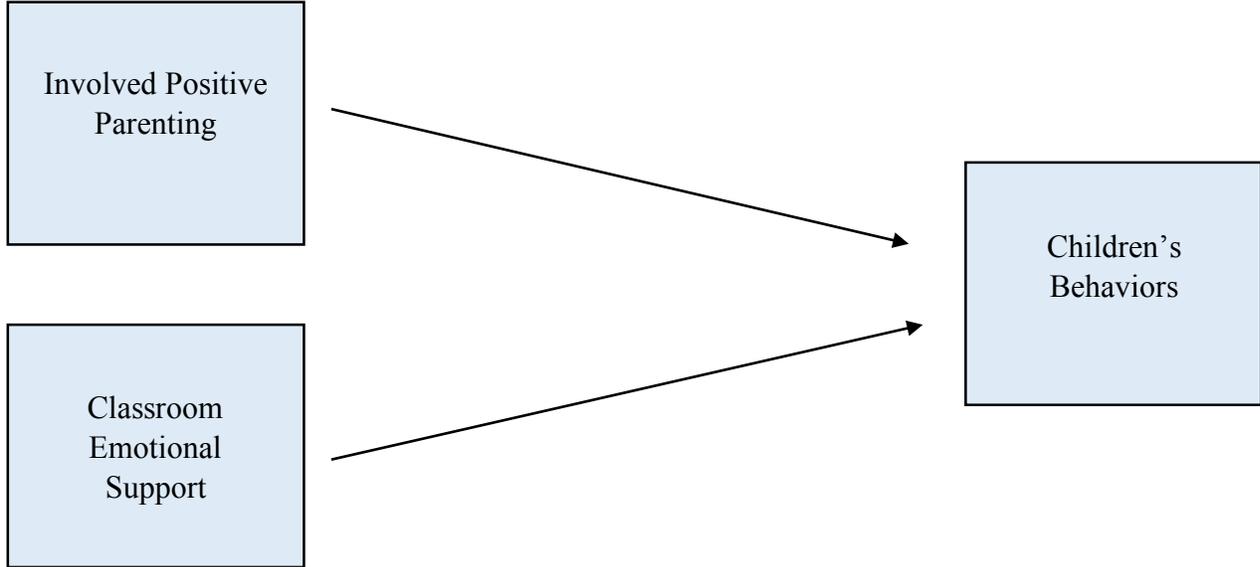
Theoretical Model. *Involved positive parenting and classroom emotional support influence children's behaviors*

Note: Child behaviors were run as 5 separate regressions (classroom aggressive, classroom withdrawn, classroom prosocial, home problem and home prosocial).

CHAPTER 3. METHODOLOGY

Participants

Data Source and Procedures

Data for the current investigation was from the Head Start Family and Child Experiences Survey (FACES) 2009 cohort data set (n=3,349). Three and four-year-old children newly entering Head Start in 2009 were eligible for the study. The FACES used multilevel random sampling, at the child, classroom, and program level. Classrooms consisted of programs in all 50 United States of America and the District of Columbia. Data was periodically collected (in four waves) until the end of the kindergarten year (first wave: fall 2009; second wave: spring 2010; third wave: spring 2011; fourth wave, 3-year-olds only: spring 2012). Child assessments, classroom observations, parent interviews, preschool teacher interviews, and kindergarten teacher interviews were conducted in the Fall of 2009, the Spring of 2010, the Spring of 2011, and the Spring of 2012. All variables for this study were taken from the second wave of data collection, except for child home language, child race, child gender and mother education, which was collected during the first wave of data collection. All interviewers and classroom observers went through extensive training before data collection began.

Study Sample

To properly account for variables used in this study, participants who were enrolled in Head Start in the Spring of 2010 and whose classroom had been observed remained in this study. Participants with missing data were eliminated from the sample. The most common reason participants were eliminated was lack of a valid weight (dropped *n*=968), which

reflects that they did not have data for one or more major components of fall 2009 or spring 2010 data collection. In addition to classroom observation, major components included information from parent interviews, teacher child report and teacher interview were all accounted for in the weight chosen for this study. The final sample of children included in the current study (*n*=2,086), were half female, 38% Hispanic, over half in poverty and a majority reported English as primary language. See Table 1 for additional sample details.

Measures

Involved Positive Parenting

The scale used for this study on involved positive parenting was adapted from the FACES 2009 scale. The items that made up the original FACES 2009 scale was adapted from the Child Rearing Practices Report (Block 1965) and consisted of 13 items. During the parent questionnaires (spring 2010), parents were asked to rate their child rearing ranging from 1 ("not at all") to 5 ("exactly"). Examples of items include: "encourage child to be curious", "make sure child knows I appreciate", "warm intimate moment with child". Three items were dropped from this scale, as they were not consistent with items considered to be involved positive parenting ("believe child be seen not heard", "physical punishment is best", and "don't allow child to get angry with me"). These items were chosen to be exempt from the final scale used for this study because the researcher is primarily interested in how involved positive parenting is associated with children's classroom and home behaviors. The items dropped were examined and carefully determined as negative parenting practices and therefore not in practice with involved positive parenting. A factor analysis was then run to determine item fit. An additional item was dropped as it loaded under a .3 on the factor

analysis ("no energy to make child behave"). The adapted scale used for this study consists of 9 items, with a good internal validity (α=0.74).

Classroom Emotional Support

Data on classroom emotional support was collected in the spring of 2010 by using the Classroom Assessment Scoring System (CLASS; Pianta et al., 2008). CLASS is an observation measure of teacher-child interactions (Pianta et al., 2008). From the CLASS scale, a sub-scale was used for classroom emotional support. The CLASS variable is composed of observational methods and focuses on the entire classroom environment, rather than how an individual child engages within the classroom setting. This means that the variable does not account for each individual child but as the "average" child within that classroom setting. Classroom emotional support is scored on positive environment, negative environment, teacher sensitivity, regard for student perspectives and overall classroom emotional support score. The overall classroom emotional support score consists of the average of positive environment, teacher sensitivity, regard for student perspective and negative environment (reversed coded). Unlike involved positive parenting, the researcher chose to keep the negative components of classroom emotional support for two reasons. First, this study aims to find the association both low and high classroom emotional support has on child behaviors. Finally, the CLASS scale is established in the literature and therefore can be compared more effectively to other studies using this measure. The internal reliability was taken from the FACES 2009 codebook and is good (α=0.82).

Children's Behaviors at Home

  Children's Problem and Prosocial Behaviors. Child behaviors in the home were assessed through parent questionnaire in the spring of 2010. The scale for this measured combined both problem and prosocial behaviors. This 21-item scale was created from several different measures including: The Personal Maturity Scale (Alexander & Entwisle, 1988), Social Skills Rating System (SSRS; Gresham and Elliott 1990), Preschool Learning Behavior Scale (PLBS; McDermott, Green, Scott, Francis, 2000), and Behavior Problems Index (Peterson and Zill, 1986). Parents were asked to rate their child on a scale from 1 ("not true") to 3 ("very true or often"), on statements such as "makes friends easily". The 21 items were categorized into one of two summary scores: (1) social skills/positive approaches to learning and (2) problem behaviors. Alpha coefficients for these scales were taken from the FACES 2009 codebook and ranged from $\alpha=0.72$ to $\alpha=0.94$, making the internal reliability good.

Children's Behaviors in the Classroom

  Children's Problem Behaviors. Frequency of problem behaviors in the classroom were assessed through the teacher child report. Teachers rated the frequency of children's problem behaviors from 1 ("never") to 3 ("very often"). Items included statements such as: "child is unhappy" or "child hits/fights with others". Data for child problem behaviors were collected in the spring of 2010. The FACES scale consisted of 14 items derived from the Personal Maturity Scale (Alexander & Entwisle et al., 1988) and from the Behavior Problems Index (Peterson and Zill, 1986), with higher scores indicating more frequent or sever problem behavior. A factor analysis was run to determine item fit. All items loaded above a .3 so subscale was kept the same. Internal reliability of the aggressive and withdrawn

subscales were taken from the FACES 2009 codebook and is good (α= 0.85, α=0.74

respectively).

Children's Prosocial Behaviors. Prosocial behaviors for Head Start children were

assessed using the Social Skills Rating System (SSRS; Gresham and Elliott 1990), from the

teacher child report. Teachers were asked to rate statements about children such as, child

"makes friends easily". Statements were rated from 0 ("not true") to 2 ("very true"). This

variable is made up of 8 items to assess child positive behaviors such as child

interest/participation, cooperation/compliance, or attention span. A factor analysis was run to

determine item fit. All items loaded above a .3 so subscale was kept the same. The internal

reliability of this scale was taken from the FACES 2009 codebook and is good (α=0.89).

Demographic Information

The following control variables were accounted for: child gender, child race, mother

education, child disability, child age, child home language and family poverty. Child gender

was collected from parent report and is coded as a bivariate variable (0=female, 1=male).

Child race was collected from parent report and was coded as a bivariate variable: white,

non-Hispanic (0=No, 1=Yes), African American, Non-Hispanic (0=No, 1=Yes),

Hispanic/Latino (0=No, 1=Yes), or Other (0=No, 1=Yes). Mother education was collected

from parent report and is coded as a bivariate variable: high school diploma (0=No, 1=Yes),

less than a high school diploma (0=No, 1=Yes), higher than a high school diploma (0=No,

1=Yes), and no education listed (0=No, 1=Yes). Child disability is coded as a bivariate and

was collected from parent report (0=No, 1=Yes). Child age was collected from parent report

and is coded as a valid numeric value. Child home language is coded as a bivariate variable

and was collected from parent report (0=No, 1=Yes). Family Poverty is coded as a bivariate

variable and was collected from parent report (0=No, 1=Yes). Additionally, another variable was created for this study to account for no mother in the home. No mom present in home is coded as a bivariate variable and was collected from parent report (0=No, 1=Yes).

Analyses

Descriptive and correlation analyses were conducted first. To address the current research questions, five separate regression analyses were run. Each dependent variable was run in a separate regression. The first two regressions were run to find the association among involved positive parenting, classroom emotional support, and parent-reported problem and prosocial child behaviors (research question 1). Child age, child gender, child race, child disability status, child home language, mother present in home, and mothers' education were run with these regressions as the control variables. The other three regressions were to find associations between involved positive parenting, classroom emotional support, and teacher-reported aggressive, withdrawn, and prosocial child behaviors (research question 2). The same control variables were used for these regressions.

Next to test for a moderation effect between involved positive parenting and classroom emotional support, five linear regression models were run. Each dependent variable was run in a separate regression. The first three moderation analyses investigated the moderation of classroom emotional support on the association among involved positive parenting, classroom emotional support (involved positive parenting X classroom emotional support), and teacher-reported children's aggressive, withdrawn, and prosocial behaviors. The last two moderation models investigated the moderation of classroom emotional support on the association between involved positive parenting, classroom emotional support

(involved positive parenting X classroom emotional support), and parent-reported children's problem and prosocial behaviors. To interpret any moderation effects, results were plotted at two levels of Emotional Support—one standard deviation above the mean, and one standard deviation below the mean.

Analyses for the current study used the appropriate weight for longitudinal data collected from parents and teachers in fall and spring of year 1, as well as classroom observations (PRA12OCW). Correlations were run with the weight specified as an analytic weight. Descriptive, regression, and liner regression analyses used the survey commands, specifying the weight used as a p-weight. Variables that did not support the weight and that were missing one or more data were dropped from this study.

CHAPTER 4. RESULTS

Preliminary Analyses

For the preliminary analyses, first descriptive analyses were run for main variables used in this study. See Table 2 for descriptive statistics on main study variables. Next correlation analyses were run using all study variables. Involved positive parenting was negatively correlated with parent-reported problem behaviors and positively correlated with parent-reported prosocial behavior. However, involved positive parenting was not significantly correlated with either teacher-reported children's problem or prosocial behaviors. On the other hand, classroom emotional support was negatively correlated with both teacher-reported children's aggressive and withdrawn problem behaviors and positively correlated with teacher-reported prosocial behavior. Classroom emotional support was not significantly correlated with either parent-report of children's problem or prosocial behaviors. For more details on additional correlations, see Table 3.

Primary Analyses

Children's Behaviors at Home

Significant findings came from analyses run on parent-reported children's behaviors. Although involved positive parenting was not significantly associated with parent-reported problem behaviors, it was positively associated with children's prosocial behaviors at home ($\beta=0.20$, $p\leq0.000$). Classroom emotional support, however, had no significant association with parent-reported children's behaviors. Some demographic variables were significantly associated with parent-reported children's behaviors. Gender, for example, was significantly

associated for both problem and prosocial home behaviors, with boys having more parent-reported problem behaviors and girls having more parent-reported prosocial behaviors (β=-0.02, p≤0.000; β=, p≤0.000, respectively). Parent-reported children's behaviors were also significantly associated with children's home language. Non-English speaking homes were associated with more parent-reported problem behaviors (β=0.20, p≤0.000) and less parent-reported prosocial behaviors (β=-0.07, p≤0.05). Children's with disability were also reported to have more problem behaviors and less prosocial behaviors in the home, compared to children with no disability (β=0.06, p≤0.05; β=-0.08, p≤0.01, respectively). Interestingly, children with no reported mother in the home were reported to have more problem behaviors compared to children with mothers in the household (β=0.07, p≤0.01). The FACES 2009 codebook clarifies that involved positive parenting was reported by a different reported (i.e., grandparent, biological father) for these children. Finally, mothers' education and child age were associated with parent-reported children's behaviors. Mothers with less than a high school education had children with more problem behaviors, compared to children with mothers that obtained a high school education (β=0.12, p≤0.01). Older children had more prosocial behaviors in the home compared to younger children (β=0.10, p≤0.000). See Table 4 for full details.

Children's Classroom Behaviors

Analyses teacher-reported children's behaviors, produced some significant findings. Classroom emotional support was negatively associated with both preschool children's aggressive and withdrawn behaviors (β=-0.08, p≤0.01; β=-0.07, p≤0.01, respectively). However, classroom emotional support had no significant association with children's classroom prosocial behaviors. Involved positive parenting had no significant association for

either children's problem or prosocial behaviors, reported in preschool classrooms. Some demographic variables were found to be associated with teacher-reported children's behaviors. First, gender differences were found across all classroom behaviors. Boys were reported to have more teacher-reported aggressive and withdrawn behaviors compared to girls ($\beta=0.25, p\leq0.000, \beta=0.12, p\leq0.01$), while girls were reported to have more teacher-reported prosocial behaviors compared to boys ($\beta=-0.23, p\leq0.000$). Additionally, younger children were reported to have more aggressive behaviors compared to older children ($\beta=-0.09, p\leq0.000$), while teacher-reports indicated that older children had more prosocial behavior compared to younger children ($\beta=0.16, p\leq0.000$). Children with no disability status were also reported to have more prosocial behaviors compared to children with disabilities ($\beta=-0.08, p\leq0.05$). Mothers' education was also shown to be associated with teacher-reported children's prosocial behaviors. Mothers' with less than a high school degree had children who were reported to have less prosocial behaviors in the classroom compared to children with mothers who at had a high school diploma ($\beta=-0.07, p\leq0.05$). Finally, child race was predictive of some teacher-reported child behaviors. Children who were reported as non-Hispanic, White, had more withdrawn behaviors, compared to Hispanic/Latino children ($\beta=0.08, p\leq0.05$). Hispanic/Latino children were also found to have more prosocial behaviors in preschool classrooms compared to non-Hispanic, African American children ($\beta=-0.11, p\leq0.01$, see Table 5).

Classroom Emotional Support as a Moderator

Two moderation models were analyzed and found significant to see if classroom emotional support moderated the associations between positive parenting and behaviors children displayed in the home. Significant moderations were identified in terms of both

problem behaviors and prosocial behaviors one standard deviation above the mean (β=-1.02, $p\leq0.000$ and β=0.65, $p\leq0.05$, respectively), and one standard deviation below the mean (β=-1.27, $p\leq0.000$ and β=0.81, $p=\leq.05$, respectively). Follow up analyses indicated that classroom emotional support moderates the association between involved positive parenting and children's prosocial behavior such that the association between involved positive parenting and children's behavior is stronger when children are in classrooms with high emotional support (See Figure 1). In other words, children experiencing both high involved positive parenting and high classroom emotional support have the most prosocial behavior at home, where as those with less involved positive parenting have less prosocial behavior. Classroom emotional support also moderated the association between involved positive parenting and children's problem behavior at home such that the association was the opposite for children in high emotional support classrooms compared to children in low emotional support classrooms (See Figure 2). In other words, children in high emotional support classrooms who experience low involved positive parenting have the most problem behavior, and those with high involved positive parenting in high emotional support classrooms have the least parent-reported problem behavior. However, children in low emotional support classrooms who have low involved positive parenting have less parent-reported problem behaviors than their peers in low emotional support classrooms who have high involved positive parenting. Upon further analyses, the moderation among involved positive parenting and children's prosocial behaviors in the home were non-significant.

CHAPTER 5. DISCUSSION

The current study aimed to address the following research questions: (RQ1) *how are involved positive parenting and classroom emotional support associated with preschool children's prosocial and problem behaviors at home?* (RQ2) *how are involved positive parenting and classroom emotional support associated with child prosocial and problem behaviors in the classroom?* (RQ3) *how does classroom emotional support moderate the associations between involved positive parenting and children's problem and prosocial behavior at home? how does involved positive parenting moderate the association between classroom emotional support and children's problem and prosocial behavior in the classroom?* Bronfenbrenner's bioecological theory was used to guide this study through considering impacts of contexts on child development. This study had three major findings: (1) involved positive parenting was associated with child parent-reported prosocial behaviors, (2) classroom emotional support was associated with children's teacher-reported problem behaviors, and (3) classroom emotional support moderated the association between parenting and parent-reported problem and prosocial behaviors. Certain control variables were also associated with children's problem and prosocial behaviors both in the home and in the classroom. The results from this study are congruent with previous literature, while also adding the unique finding of classroom emotional support moderating the association between involved positive parenting and children's behaviors.

Involved positive parenting was found to be positively associated with parent-reported prosocial behaviors for preschool children. This is congruent with previous literature in that positive parenting impacts positive child development (Kerr, Lopez, Olson, & Sameroff, 2004; Treyvaud et al., 2009; Healey, Flory, Miller, & Halperin, 2011). The current

study found that when parenting is warm, supportive, and encouraging, children exhibit more

prosocial behaviors. When parents practice these types of parenting styles, children benefit

by continuing to develop prosocial and positive behaviors. For example, when parents are

warm and encouraging, children are more likely to play well with others. Contrary to the

hypotheses, classroom emotional support was not associated with either parent-reported

problem or prosocial behaviors. This phenomenon has very limited, if any, research looking

at how cross-contexts are associated with children's behaviors in separate environments.

Much of research focuses on how parenting styles influence children's development and how

teacher-child relationships influences children's behaviors within the classroom. Though

studies have found that loving, supportive, and positive parenting techniques are associated

with more positive outcomes for children (Pasalich, Dadds, Hawes, & Brennan, 2011;

Treyvaud et al., 2009), and positive teacher-child relationships promote academic success,

feelings of worth, and positive peer interactions when teachers and children had close and

supportive relationships (Baker, Grant, & Morlock, 2008; Bierman et al., 2008; Denham et

al., 2003), rarely are the two different adult-child interactions considered together. The

current study reiterates this finding that when parents report having positive parenting

practices with their children, they also report children having prosocial problem behaviors.

Classroom emotional support was negatively associated with teacher-reported

problem behaviors (both aggressive and withdrawn) in preschool-aged children. Previous

literature has distinguished similar findings in that children in classrooms with high

classroom emotional support have fewer aggressive behavior, have positive peer interactions,

and better teacher-child interactions (Downer et al., 2007; Merritt et al., 2012). Additionally,

classroom emotional support lessens the frequency of problem behaviors for children who

are more at-risk for problem behaviors (i.e., depressive mother, temperament) (Downer et al., 2007; Johnson, Seidenfeld, Izard, & Kobak, 2013; Hamre & Pianta, 2005). However, within classrooms, previous and current literature indicates that preschool programs, centers, and teachers need to encourage a supportive and positive emotional environment for their students. Preschool children benefit greatly when they are in classrooms where they feel appreciated, valued, and have a close connection to their teacher (Merritt et al., 2012; Downer et al.,2007). This indicates that when environments are not consistent across in their expectations for children, children may be unsure of expectations they need to achieve.

Within-context findings, and the lack of cross-context findings tell us that the environment that the child is in is associated with how behaviors are reported. Some previous literature supports this with some findings of disconnect between teacher- and parent-reported children's behaviors (Deater-Deckard, & Plomin, 1999). Teacher- and parent-reported children's behaviors were shown to have a disproportionate rating of preschool children's aggressive behaviors, comparatively (Deater-Deckard, & Plomin, 1999). Like involved positive parenting, classroom emotional support was not associated with parent-reported child behaviors. This suggests that children behave differently based on the environment that they are in.

Classroom emotional support moderated the association between both parent-reported problem and prosocial behaviors in preschool children. Previous literature has found some buffering effects of adult-child interactions on preschool children's development (Yan, Zhou, & Ansari, 2016). Many studies have considered how parent-child interactions impact preschool classroom behavior. Teachers reported more problem behaviors in preschool children when parents reported more stress and less positive parenting styles (Anthony et al.,

2005). Mother-child interactions have also been found to influence teacher-reported children's behaviors (Pianta, Nimetz, & Bennett, 1997; Merritt et al., 2012). Family interactions are more predictive of classroom behaviors and preparedness compared to teacher-child interactions (Pianta et al., 1997). Parent-child interactions also matter for teacher-reported children's behaviors and academic outcomes (Merritt, Wanless, Rimm-Kaufman, Cameron, & Peugh, 2012; Pianta et al., 1997). Classroom emotional climate was found to elevate negative outcomes of preschool children with depressive mothers. The development of aggressive behaviors, social relationships, and cognitive outcomes were all less effected by mothers' depressive symptoms when children were in warm, and emotionally supportive classrooms (Yan et al., 2016). This further suggests that the parent-child interaction has an influence on child classroom behaviors.

Similar to previous literature, the current study found that classroom emotional support buffered the association between involved positive parenting and children's behaviors at home. The current interpretation of the moderation effect of classroom emotional support on the association between involved positive parenting association and children's home behaviors, however, proved interesting. Children who were in similar contexts faired the best in parent reported behaviors. For example, the children reported as having the fewest problem behaviors were those who were in high emotional support classrooms with high involved positive parenting. However, the next lowest parent-reported problem behaviors were children in low classroom emotional support and who had low involved positive parenting. We might have expected that these children would have the most problem behaviors given previous research focused on parenting (Healey et al., 2011) or who focused on classrooms (Downer et al., 2007) suggesting children with the least positive

adult-child interactions had the most problem behavior. The children with the most parent-reported problem behaviors were those who had high classroom emotional support and low involved positive parenting, only slightly more than children in low classroom emotional support with high involved positive parenting.

Classroom emotional support moderated the association between involved positive parenting and children prosocial behaviors. Although less of a change in behaviors compared to children's problem behaviors, parent-reported prosocial behaviors also had an interesting interaction with children in mismatched adult-child interactions having the least amount of parent-reported prosocial behaviors. For instance, children with the most parent-reported prosocial behaviors had high involved positive parenting and were in high classroom emotional supportive classrooms. Like problem behaviors, however, the children with the least reported prosocial behaviors were in high classroom emotional support, with low involved positive parenting. Although the interpretation of these findings was unexpected, a few explanations of these results are offered.

The first possible explanation for the unexpected moderation effects is that although context matters for behaviors, the mismatch of adult-child interactions is problematic. When adult-child interactions differ, children may fail to meet the expectations of one or both adults. To date, there is very little work looking directly at matches in social and emotional support between parent-child and teacher-child interactions, as studies have mainly looked at how adult-child interactions can influence each other. For example, mother-child interactions were found to be correlated with teacher-reported preschool children's social adjustments, as well as children's cognitive development in preschool classrooms (Pianta et al., 1997). Some research has discussed teacher-child cultural mismatches, that could be similar to the

mismatch of interactions in social and emotional child interactions. Research suggests that teacher-child interactions and closeness are in-part related to ethnicity match (Garner, & Mahatmya, 2015; Hofstede, 1986). This could help guide future research when looking at adult-child interaction matches in both home and classroom contexts.

Another possibility explaining this moderation effect is that parents who reported parenting behaviors indicative of low positive parenting may differ in their perceptions of what constitutes problem behavior or particularly prosocial behavior. In other words, parent's perceptions of their children's behaviors may be related to their involved positive parenting such that highly involved positive parents have higher expectations and thus are more critical of their children's behaviors when they misbehave. In turn, these parents may report the same level of problem behavior as more problematic than less involved parents. More specific to the measures used in the current study, a parent might report that the statement "Follow through on deal with misbehavior" is not true about them, giving them a lower involved positive parenting score. This same parent, when considering their child's challenging behaviors, might report that they do not do the behavior "often" because this parent's perception of "often" differs from highly involved parents. Future work, using independent measure of children's behaviors, could further evaluate this.

Limitations

The current study has many limitations that are important to acknowledge to aid in future research on this topic. One limitation was self-reported data used to measure involved positive parenting. Although such methodology is a common tool used in research and necessary to understand parents' own perceptions of their parenting styles and techniques,

more objective forms such as parent-child observation is necessary to provide less biased results. Avoiding mono-reporter bias would be ideal. Another limitation to this study was the differences between the involved positive parenting variable and the classroom emotional support variable. Involved positive parenting looked strictly at positive parenting practices; however, classroom emotional support had negative classroom environment items within the scale. Classroom emotional support (which is a subscale of the CLASS scale) is a very reliable scale and used often in literature (Downer et al., 2007). Future studies, however, could create a variable more comparable to involved positive parenting by accounting only for positive environment in classroom emotional support. The CLASS subscale, classroom emotional support. The current study did not account for nesting of children in classrooms, which is another limitation of this study. Since a nested design was not used, children in the sample are systematically more similar to each other than to other children. This violates the assumption of independence. Accounting for nesting could have changed some significant findings in this study. Using a nested design might alter the significance of the moderation findings for classroom emotional support's moderation between involved positive parenting/classroom emotional support and child behaviors. Finally, list-wise deletion was used to account for missing data. List-wise deletion removes all data with one or more missing variables, possibly creating bias findings.

Implications and Future Direction

Implications of this study include parenting practices, classroom environment, and preschool children's behaviors that can be put into practice. Involved positive parenting was found to be positively associated with preschool children's prosocial behaviors, while

classroom emotional support was negatively associated with preschool children's problem behaviors. When children are exposed to positive parenting practices and social-emotional supportive classroom environments, they have more prosocial behaviors and less problem behaviors. Implications could include policymakers providing teachers with the adequate teaching tools for classroom emotional support. Additionally, classroom emotional support moderates the association between involved positive parenting and children's home behaviors. Children with low involved parenting should not be put in low emotional support classrooms, as they have more problem behaviors.

These findings add to the previous literature by accounting for classroom emotional support as a moderator between involved positive parenting and children's behaviors. This is a novel discovery as mismatch in adult-child interactions leading to more problem and less prosocial classroom behaviors has not been widely found. Future studies would benefit from looking more into the moderation effect of classroom emotional support on the association between involved positive parenting and children's behaviors. The unexpected moderation raised many questions for future research. Most profoundly, looking at why low involved positive parenting and low classroom emotional support would result in fewer reported home behaviors compared to low involved positive parenting and high classroom emotional support. Examining other factors that could be influencing this moderation is necessary in order to better interpret these findings. Accounting for nesting would be necessary in future studies.

Using a measure that captures *positive* classroom emotional support to compare to involved positive parenting would also be beneficial to future research. As discussed, a limitation of the current study was that the CLASS subscale classroom emotional support

accounted for both negative and positive classroom emotional support. Additionally, the measure for involved positive parenting accounted for the individual child while the classroom emotional support accounted for the environment for an entire classroom. Having a more similar comparison between home and classroom environments would aid in the interpretation of future studies.

A longitudinal study would be beneficial to further examine how parenting practices and classroom emotional support can impact children's behaviors over time. Previous literature suggests that both parenting and early classroom interactions have impacts on children outcomes throughout life (Denham, Renwick, & Holt, 1991; Rimm-Kaufman et al. 2009). Positive parenting encourages children's autonomy, positive self-image, and positive social-emotional development (Denham et al., 1991). Similarly, positive preschool teacher-child relationships predict academic success, positive peer relationships, and more prosocial behavior (Rimm-Kaufman et al., 2009; Sebanc, 2003; Williams, et al., 2009). Children with these types of positive adult-child interactions, were found to have better success keeping a job, less conflictual relationships, and more prosocial behaviors (Denham et al., 1991; Rimm-Kaufman et al., 2009). Examining how involved positive parenting and classroom emotional support is predictive of outcomes across ages would help us to understand just how important these interactions are across childhood and into adolescence and adulthood. Additionally, testing classroom emotional support as a moderator between involved positive parenting associations with behaviors would help determine whether older children can benefit from high classroom emotional support when parents involved positive parenting is low.

Future studies should also continue to address gender differences in problem and prosocial behaviors in preschool children. The findings for this study were congruent with

previous literature in that girls were reported with more prosocial behaviors and less problem behaviors compared to boys, in both parent- and teacher-reports (Ewing and Taylor, 2009; Pasalich, Dadds, Hawes, & Brennan, 2011). Little research has been done on teacher-child gender comparison, however, teacher-child culture match could guide this study. Children who had cultural differences from their teachers have barriers that need to be accounted for in order for a cohesive environment to unfold (Hofstede, 1986). One possible theory for this is a disconnect of understanding between cultures, or that children do not feel that they relate well with their teacher. Similarly, teach-gender match may provide some insight to gender differences in preschool prosocial and problem behaviors.

Conclusion

Findings from this study indicate that preschool children's behaviors are associated with parenting practices and classroom environment when their behaviors are reported in their distinguished contexts. Interestingly, classroom emotional support can buffer the association between involved positive parenting and children's home behaviors, however, not in a way that was predicted by this study. Examining matched parenting practices and classroom environments is necessary to better understand this moderation. Future studies could examine this finding further in order to address ways that classroom emotional support can buffer child outcomes when positive parenting practices are low.

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APPENDIX A. IRB APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
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October 17, 2013

Dr. Christine Maynard
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Dear Dr. Christine,

Thanks for your inquiry regarding the use of secondary data. If the data has already been collected under another study, your study would be research involving the study of existing data. IRB review would be required if you have access to this data, which must be publicly available or recorded by the investigator in a manner that subjects cannot be identified, directly or indirectly through identifiers linked to the subjects. However, if you do not have access directly to the original dataset and you are only receiving data that is in a completely de-identified format where it does not include any identifiers or codes that could link the data to identifiable information, it may not involve human subjects as defined by the federal regulations. The data must be both identifiable and private in order to be considered human subjects and would require IRB review.

From the information you provided, you will be obtaining a de-identified set of data that will not include any identifiers; the combination of the data cannot be combined to disclose the participants' identities; and you will not have access to any keys that would link any codes to identifiers.   Please be sure to check with the University of Michigan to ensure that you are using the data in a manner that is acceptable based on what was agreed upon by the participants during the consent process for their IRB approved project. **As long as your research is in line with what the participants consented to, you are not receiving any information that could be identifiable, and it is not federally funded, it will not require IRB review as your data would not be considered data that involves human subjects as defined by the federal regulations.**

Feel free to contact me if you have any questions.

Sincerely,

Roxanne Bappe
IRB Adminstrator

APPENDIX B. MEASURES TABLE

	Scale	Time	Source	Items	Alpha	Notes
Involved Positive Parenting	Child Rearing Practices Report (Block 1965)	Spring of 2010	Parent-report	P2H16A, P2H16C, P2H16D, P2H16E, P2H16G, P2H16I, P2H16J, P2H16K, P2H16L	α=0.74	Excluded items: P2H16B, P2H16F, P2H16H, P2H16M
Classroom Emotional Support	Classroom Assessment Scoring System (CLASS; Pianta et al., 2008)	Spring of 2010	Classroom Observation	02CLSSES	α=0.82	None.
Children's Behaviors at Home (Problem and Prosocial)	Personal Maturity Scale (Alexander & Entwisle, 1988), Social Skills Rating System (SSRS;	Spring of 2010	Parent-report	P2PSSPAL, P2PBEPRB	α=0.72 to α=0.94	None.

	Gresham and Elliott 1990), Preschool Learning Behavior Sclae (PLBS; McDermott, Green, Scott, Francis, 2000), and Behavior Problems Index (Peterson and Zill, 1986)					
Children's Behaviors in the Classroom (Problem)	Personal Maturatiy Scale (Alexander & Entwisle et al., 1988) and from the Behavi	Spring of 2010	Teacher-report	R2BWITH, R2BAGGR	α=0.85 α=0.74	None.

	or Problems Index (Peterson and Zill, 1986)					
Children's Behaviors in the Classroom (Prosocial)	Social Skills Rating System (SSRS; Gresham and Elliott 1990)	Spring of 2010	Teacher-report	R2SSRS	α=0.89	None.
Demographic Information	---	Spring of 2010	Parent-report	CHGENDER, CRACE, P1RHHLNG, P2POVRTY, P1RMOMED, A2CAGE, P2CHDISB		

Table 1: *Demographics of participants*

Variables	n	%
Gender	2,086	
Female		50%
Male		50%
Child Race/Ethnicity	2,086	
Hispanic/Latino		38%
African American, non-Hispanic		33%
White, non-Hispanic		21%
Other		8%
Child's cohort (3- or 4-year-old cohort)	1,963	
3		64%
4		36%
Poverty Status	2,068	
Yes		62%
No		38%
Primary Language Spoken to Child	2,086	
English		71%
Non-English		29%
Mother Highest Education	2,086	
Less than HS Diploma		34%
HS Diploma or GED		30%
More than a HS Diploma or GED		28%
No mother in home		7%
Child Disability Status	2,027	
No		96%
Yes		4%

Table 2: *Descriptive statistics of study variables*

Variables (n=2,037)	*Mean*	*Std. Dev.*	*Min*	*Max*
Children's Teacher-reported Behaviors				
Withdrawn	1.34	1.82	0	12
Aggressive	1.39	1.88	0	8
Prosocial			0	24
Children's Parent-reported Behaviors				
Problem	5.38	3.59	0	21
Prosocial	12.40	2.51	0	16
Involved Positive Parenting	4.18	0.52	0	5
Classroom Emotional Support	5.29	0.94	0	6.38

Table 3: *Bivariate relations among main study variables*

	Teacher-reported Aggressive Behavior	Teacher-reported Withdrawn Behavior	Teacher-reported Prosocial Behavior	Parent-reported Problem Behavior	Parent-reported Prosocial Behavior	Involved Positive Parenting	Classroom Emotional Support
Teacher-reported Aggressive Behavior	1	.34*	-.59*	.17*	-.17*	.01	-.08*
Teacher-reported Withdrawn Behavior	-	1	-.40*	.13*	-.07*	.04	-.07*
Teacher-reported Prosocial Behavior	-	-	1	.16*	.15*	-.02	.05*
Parent-reported Problem Behavior	-	-	-	1	-.27	-.05*	-.00
Parent-reported Prosocial Behavior	-	-	-	-	1	.19*	-.03
Involved Positive Parenting	-	-	-	-	-	1	-.03
Classroom Emotional Support	-	-	-	-	-	-	1

Note. *p≤0.05

Table 4: *Multiple Regression Models Predicting Teachers' Reports of Children's Classroom Behavior*

	Aggressive Behaviors			Withdrawn Behaviors			Prosocial Behaviors		
	Coefficient	*SE*	*β*	*Coefficient*	*SE*	*β*	*Coefficient*	*SE*	*β*
Positive parenting	0.03	0.09	0.01	0.10	0.09	0.03	-0.07	0.22	-0.01
Classroom ES	-0.30**	0.10	-0.08	-0.27**	0.10	-0.07	0.35	0.23	0.04
Child Gender	0.93***	0.10	0.25	0.45***	0.10	0.12	-2.04***	0.24	-0.23
Child Home Language	-0.22	0.13	-.05	-0.28	0.15	-0.07	0.02	0.34	0.00
Poverty Status	-0.15	0.11	-0.04	0.03	0.11	0.01	-0.11	0.25	-0.01
Child Disability Status	0.11	0.27	0.01	-0.10	0.20	-0.01	-1.39*	0.66	-0.06
Child Age	-0.03***	0.01	-0.09	-0.01	0.01	-0.04	-0.01	0.01	0.16
Mother Education [a]									
Less than HS	-0.01	0.13	-0.00	-0.11	0.13	-0.03	-0.71*	0.30	-0.07
More than HS	-0.01	0.12	-0.00	-0.19	0.13	-0.05	0.27	0.30	0.03
No Mom in Home	0.34	0.22	0.05	-0.00	0.21	-0.00	-0.68	0.50	-0.04
Child Race [b]									
White	0.16	0.16	0.04	0.37*	0.19	0.08	-0.68	0.40	-0.06
African American	0.16	0.14	0.04	0.00	0.16	0.00	-1.08**	0.36	-0.11
Other	-0.16	0.17	-0.02	-0.04	0.20	-0.01	-0.68	0.49	-0.04
Constant	3.88***	0.82		2.77**	0.85		11.51***	1.88	

Note.   a: reference group for mother education is *mother has high school diploma*
b: reference group for child race is *Hispanic/Latino*
*p≤0.05, **p≤0.01, ***p≤0.000

Table 5: *Multiple Regression Models Predicting Parents' Reports of Children's Home Behavior*

	Problem Behaviors			Prosocial Behaviors		
	Coefficient	*SE*	*β*	*Coefficient*	*SE*	*β*
Positive parenting	-0.17	0.17	-0.03	0.94***	0.13	0.20
Classroom ES	-0.14	0.21	-0.02	-0.11	0.13	-0.02
Child Gender	0.71***	0.18	0.10	-0.55***	0.13	-0.11
Child Home Language	1.60***	0.26	0.20	-0.41*	0.19	-0.07
Poverty Status	0.25	0.19	0.03	0.19	0.13	0.04
Child Disability Status	1.00*	0.48	0.06	-1.00**	0.36	-0.08
Child Age	-0.00	0.01	-0.01	0.04***	0.01	0.10
Mother Education [a]						
Less than HS	0.87**	0.25	0.12	0.06	0.17	0.01
More than HS	-0.38	0.22	-0.05	-0.10	0.16	-0.02
No Mom in Home	1.00**	0.39	0.07	-0.47	0.27	-0.05
Child Race [b]						
White	0.33	0.31	0.04	-0.27	0.22	-0.04
African American	-0.34	0.26	-0.05	-0.11	0.20	-0.02
Other	-0.61	0.37	-0.05	0.05	0.25	0.01
Constant	5.78***	1.60		7.36***	1.09	

Note. a: reference group for mother education is *mother has high school diploma*
b: reference group for child race is *Hispanic/Latino*
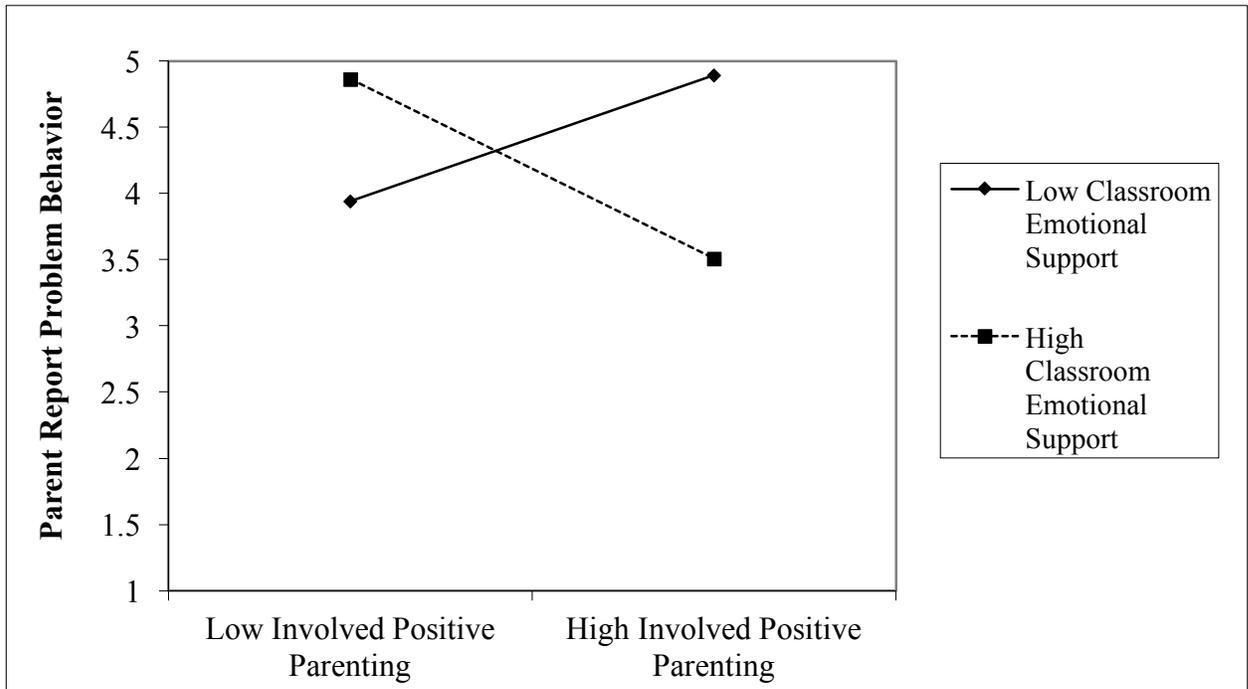*p≤0.05, **p≤0.01, ***p≤0.000

Figure 1: *Classroom emotional support as a moderator between involved positive parenting and children's parent-reported problem behaviors*
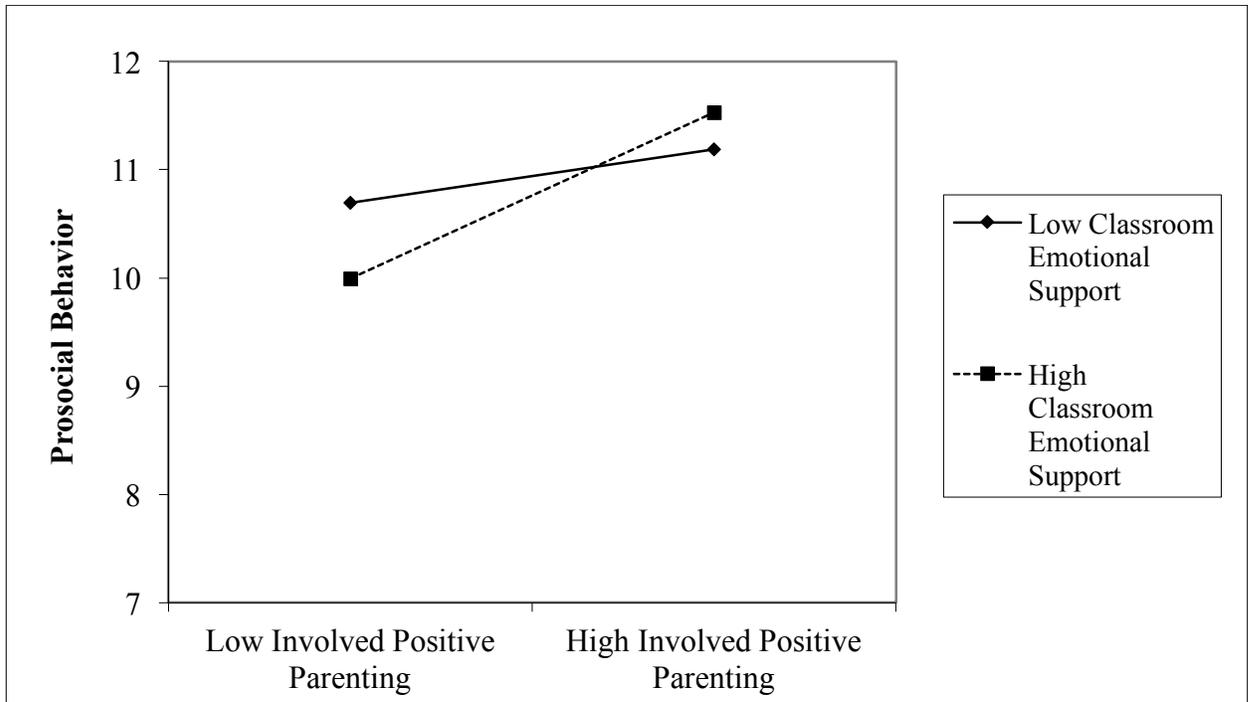
Figure 2: *Classroom emotional support as a moderator between involved positive parenting and children's parent-reported prosocial behaviors*