

2018-04-27

Parent-Teacher Agreement on Problem Behavior in Kindergarten Children with and without an Individualized Education Program

Chelsea Morris

University of Miami, cxm457@miami.edu

Follow this and additional works at: https://scholarlyrepository.miami.edu/oa_dissertations

Recommended Citation

Morris, Chelsea, "Parent-Teacher Agreement on Problem Behavior in Kindergarten Children with and without an Individualized Education Program" (2018). *Open Access Dissertations*. 2041.

https://scholarlyrepository.miami.edu/oa_dissertations/2041

This Open access is brought to you for free and open access by the Electronic Theses and Dissertations at Scholarly Repository. It has been accepted for inclusion in Open Access Dissertations by an authorized administrator of Scholarly Repository. For more information, please contact repository.library@miami.edu.

UNIVERSITY OF MIAMI

PARENT-TEACHER AGREEMENT ON PROBLEM BEHAVIOR IN
KINDERGARTEN CHILDREN WITH AND WITHOUT AN INDIVIDUALIZED
EDUCATION PROGRAM

By

Chelsea Tey Morris

A DISSERTATION

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Philosophy

Coral Gables, Florida

May 2018

©2018
Chelsea Tey Morris
All Rights Reserved

UNIVERSITY OF MIAMI

A dissertation submitted in partial fulfillment of
the requirements for the degree of
Doctor of Philosophy

PARENT-TEACHER AGREEMENT ON PROBLEM BEHAVIOR IN
KINDERGARTEN CHILDREN WITH AND WITHOUT AN INDIVIDUALIZED
EDUCATION PROGRAM

Chelsea Tey Morris

Approved:

Batya Elbaum, Ph.D.
Professor of Teaching and Learning

Cengiz Zopluoglu, Ph.D.
Assistant Professor of Educational and
Psychological Studies

Wendy Morrison-Cavendish, Ph.D.
Associate Professor of Teaching
and Learning

Elizabeth Harry, Ph.D.
Professor of Teaching and Learning

Cheryl Beverly, Ph.D.
Professor of Learning, Technology,
and Leadership Education
James Madison University

Guillermo Prado, Ph.D.
Dean of the Graduate School

MORRIS, CHELSEA TEY

(Ph.D., Teaching and Learning)

Parent-Teacher Agreement on Problem Behavior
in Kindergarten Children with and without
An Individualized Education Program

(May 2018)

Abstract of a dissertation at the University of Miami.

Dissertation supervised by Professor Batya Elbaum.

No. of pages in text. (55)

Problem behavior in kindergarten children, if severe or persistent, can lead to negative outcomes including school disciplinary responses such as expulsion. The perceptions of both teachers and parents are important in identifying young children's problem behavior; however, studies indicate that teachers' and parents' ratings of children's problem behavior are often discrepant. Using data from a nationally representative sample of children (Early Childhood Longitudinal Study, Kindergarten Cohort 2010-11; ECLS-K, 2011), the present study investigated such discrepancies in kindergarten students whose behavior ratings by their teachers indicated moderate to severe behavior problems ($n = 3,310$). For children in the analytic sample who were receiving special education services ($n = 450$), it was hypothesized that teachers' and parents' ratings would be in greater agreement, given that the process of developing the child's Individualized Education Program (IEP) involves joint discussion, by a child's teacher and the child's parents, of the child's strengths and challenges. Given previous literature on factors affecting agreement between teachers and parents, the analysis controlled for child's gender, race, and race match/mismatch to the teacher's race. Consistent with the findings of previous studies, results of a mixed Analysis of Variance

showed a significant main effect for rater, such that teachers rated children as having more severe problem behaviors than parents. Contrary to what was hypothesized, the parent-teacher discrepancy was not attenuated for children with IEPs. Findings of the study are discussed in relation to the identification of children's problem behaviors, the role of special education services addressing behavioral concerns, and school discipline policies for kindergarten students.

DEDICATION

This work is dedicated to each and every parent of a young child in our public schools. May you be supported, heard, and valued. May you find the power to influence the school professionals to see the unlimited potential of your child, regardless of difference.

ACKNOWLEDGEMENT

“I’ve been lucky. Opportunities don’t often come along. So, when they do, you have to grab them.”
–Audrey Hepburn

This adventure would not have been possible without opportunities that have been given to me throughout my life. Opportunities, which I acknowledge, may have not come if my race or ability were different. Throughout, I have been fully loved and encouraged, pushing me every step of the way. To this, I acknowledge my very best friend, Michael, for sharing every day how proud and willing he is to be on this journey with me and my mom, a rock solid example of perseverance, strength, and decency. I would also like to acknowledge the safety net of other family and friends who have reassured me and energized me, especially my amazing sister and her McNally crew, my Virginia dad, my Aunt Arlene, my grandparents, Dilenda, my husband’s parents, my sweet Rumi, and to many more in Virginia: here’s looking at you Lori & Co., Carol & Co., Olson, Koegler, Stauffer, Chidester (to name a few). Also, to Dr. Beverly, our relationship was the first that academically pushed me, thank you for your support through all my graduate pursuits, I am grateful for your service as a member of my committee at JMU and in this endeavor.

Additionally, this dissertation, and completion of this program would have never been as successful and rewarding if not for those I met at the University. Dr. Elbaum, you are my mentor, my colleague, an undeniably motivated scholar, and the best advisor and dissertation chair I could have asked for, thank you. Dr. Cavendish, you have empowered me with language and knowledge that will forever help me navigate inequities our

children face. Thank you for mentoring me throughout the program and for serving as a member of my dissertation committee. Dr. Harry, it was your message, through Melanie, that encouraged my parent-forward lens and the reason I pursued a doctoral degree.

Thank you for sharing your expertise and for serving on my dissertation committee. Dr. Zopluoglu, I am truly thankful for your ongoing patience as I navigated doctoral-level statistics courses and your service as a member of my committee. Finally, without the #s, texts, light conversations, and deep scholarly thoughts of Lindsey Chapman, I would have been lost in the clouds. Thank you, friend, I am proud to be your colleague.

TABLE OF CONTENTS

	Page
LIST OF TABLES AND FIGURES	viii
Chapter	
1 INTRODUCTION	1
Parent-Teacher Agreement.....	2
Parent-Teacher Agreement and Special Education.....	4
Factors Affecting Parent-Teacher Agreement.....	5
Purpose of the Study.....	7
2 LITERATURE REVIEW	9
Problem Behavior in Kindergarten.....	9
Parent-Teacher Agreement	13
Parent-Teacher Agreement and Special Education Status	15
Disability, Race, and Gender.....	16
Summary.....	17
3 METHOD	18
Data Source.....	18
Selection of the Sample	19
Variables	20
Special Education Status.....	25
Analytic Approach.....	26
4 RESULTS	31
Characteristics of the Sample.....	31
Analytic Findings.....	31
5 DISCUSSION.....	34
Parent-Teacher Agreement	34
Parent-Teacher Agreement and Special Education Status.....	35
Implications for Practice.....	37
Implications for Policy.....	38
Implications for Research	40
Limitations	41
Conclusion	42

REFERENCES	44
APPENDICES	54
A MISSING DATA ANALYSIS.....	54
B COMPARISON OF THE STUDY SAMPLE TO THE ECLS-K:2011 SAMPLE.....	55

LIST OF TABLES AND FIGURES

Table

1 Measures of Teacher- and Parent-Reported Problem Behavior (School Year 2010-11)..... 22

2 Correlations among Teacher- and Parent-Reported Problem Behavior Measures 23

3 Item Correlations for Impulsivity and Self-Control Items in the ECLS-K:1999, Spring 1999 (*n* = 21,260) 24

4 Parents’ and Teachers’ Mean Ratings of Children’s Problem Behavior..... 32

5 Mixed ANOVA Results..... 33

Figure

1 Scree plot of seven items from measures of impulsivity and self-control in the ECLS-K:1999 25

Chapter 1: Introduction

Children who display problem behavior in kindergarten are at risk for a host of negative outcomes (Garcia, 2015), including more conflictual and less close relationships with teachers (Buyse, Verschueren, Doumen, Van Damme, & Maes, 2008), suspension or expulsion (Skiba, Chung, Trachok, Baker, Sheya, & Hughes, 2014), retention in later grades and poor academic performance (Bettencourt, Gross, & Ho, 2016), and receipt of a later diagnosis of a behavior disorder or referral to intervention programs (Crane, Winsler & Sands, 2013; Speltz, McClellan, DeKlyen, & Jones, 1999). Fortunately, in kindergarten, most children are learning self-control and social-emotional skills and, as these skills improve, problem behavior lessens (Phillips & Lonigan, 2010). If the problem behaviors are severe or persistent enough, however, children may require specialized services and supports individualized to their needs (Lavigne, Dahl, Gouze, LeBailly, & Hopkins, 2015).

In early childhood settings, differences between normative misbehavior and problem behavior are difficult to assess (De Los Reyes, Henry, Tolan, & Wakschlag, 2009). As such, the use of multiple informants to identify problem behavior allows for a comprehensive view of the child (De Los Reyes & Kazdin, 2005). Teachers play a critical role in the early identification of problem behaviors that may indicate social and emotional challenges in young children who could benefit from more individualized intervention. At the same time, a child's parent and/or guardian (hereafter referred to as "parent") also play a key role in identifying concerns, offering an additional perspective of the child's behavior to what is reported at school. Korsch and Petermann (2014) found that parents' and teachers' reports of problem behavior were both "important and not

interchangeable” when understanding children’s problem behavior and determining whether children would benefit from individual intervention (p. 624). Similarly, it has been found that agreement between teachers’ and parents’ ratings of children’s problem behavior is a strong predictor of children’s later need for professional help (Crane et al., 2013; Ferdinand, Van der Ende, & Verhulst, 2007; Korsch & Petermann, 2014; Verhulst, Koot, & Van der Ende, 1994).

Parent-Teacher Agreement

Findings related to ratings of problem behavior in young children are similar to findings from studies using samples of older children, in that when examining the agreement between parents’ and teachers’ ratings, interrater correlations are generally low to moderate (Berg-Nielsen, Solheim, Belsky, & Wichstrom, 2012; Gagnon, Vitaro, & Tremblay, 1992; Gross, Fogg, Garvey, & Julion, 2004; Harvey, Fischer, Weleneth, Hurwitz, & Sayer, 2013; Hinshaw, Han, Erhardt, & Huber, 1992). Some studies have even found parents’ and teachers’ ratings are not correlated (Kerr, Lunkenheimer, & Olson, 2007). Also, as is the case with regard to discrepancies between parents’ and teachers’ ratings of older children’s problem behavior, the early childhood informant discrepancy literature asserts the importance of situational specificity, the idea that children behave differently in home environments than they do in school environments. In their study, De Los Reyes and colleagues (2009) found that only 8.8% of preschool students displayed problem behavior across both parent and teacher settings, but 29.4% displayed problem behavior in parent-only settings. Consistent with these findings, parents often report more problem behavior than teachers in the early childhood

informant discrepancy literature (Berg-Nielsen et al., 2012; Gagnon et al., 1992; Harvey et al., 2013; Winsler & Wallace, 2002).

Ongoing attention to agreement between parents' and teachers' ratings of problem behavior justifies a need to better understand the phenomenon of informant discrepancies, particularly for students with more severe problem behavior than their same-aged peers. Parent-teacher agreement may be stronger when problem behavior is more severe because severe behavior is more likely to be salient across contexts and, thus, identifiable by multiple raters. Greater alignment between teachers' and parents' ratings has, indeed, been found when children display higher levels of problem behaviors (De Los Reyes et al., 2009; Feeney-Kettler, Kratochwill, & Kettler, 2011; Phillips & Downer, 2017; Winsler & Wallace, 2002). However, some studies have found that as children display more severe problem behavior, parent-teacher agreement decreases (Berg-Neilsen et al., 2012; Lavigne et al., 2015). Despite equivocal findings about the extent of alignment between parents' and teachers' ratings of problem behavior as the severity of behavior increases, most researchers recommend that parents' and teachers' ratings both be used when identifying which students require intervention services (De Los Reyes, Thomas, Goodman & Kundey, 2013; Diamond & Squires, 1993; Lane, Stanton-Chapman, Jamison & Phillips, 2007). Similarly, many formal procedures for determining diagnoses and eligibility for specialized services require the use of multiple informants (e.g. American Psychological Association [APA], 2013; Individuals with Disabilities Education Act [IDEA], 2004).

Parent-Teacher Agreement and Special Education

Acknowledging the importance of considering both parent and teacher perspectives on children's behavior, policies that guide diagnostic and special education processes require that both parents' and teachers' views regarding the child be solicited before providing intervention for behavior-related concerns (APA, 2013; IDEA, 2004; Lamont & Council on School Health, 2013). Federal law requires students who receive special education services and supports to have an Individualized Education Program (IEP) that is developed jointly by the child's teacher and the child's parent (IDEA, 2004). Given these mandates, teachers and parents of students determined eligible for special education services may have "more opportunities to communicate about children's progress and performance, thus increasing the degree to which they share similar perspectives and agree" (Dinnebeil, Sawyer, Logan, Dynia, Cancio, & Justice, 2013, p. 150). It could be suggested, then, that in comparison to parent-teacher agreement on problem behaviors of children not receiving special education services, parents' and teachers' ratings of problem behavior for children with IEPs would show greater agreement.

In some studies, greater parent-teacher agreement on ratings of problem behavior for young children with developmental delays has been confirmed (Hundert, Morrison, Mahoney, Mundy, & Vernon, 1997). However, agreement between teachers and parents of children with disabilities on ratings of problem behavior has also been found to be similar to samples of children without disabilities, with both in the low to moderate range of agreement (Stratis & Lecavalier, 2015). As a result of inconsistent findings,

differences in parent-teacher agreement across samples of children with and without disabilities require additional systematic examination.

Factors Affecting Parent-Teacher Agreement

Many family, teacher, child, and school characteristics have been investigated as factors that account for differences in the magnitude and the direction of parent-teacher agreement. In studies that focus on young children, family characteristics that have been posited as predictors of parent-teacher agreement have included father's occupational prestige (Gagnon et al., 1992), parental dysfunction and family stress (Kolko & Kazdin, 1993), maternal mental health (Lavigne et al., 2015), and socio-economic status of families (Cai, Kaiser, & Hancock, 2004; Hauser-Cram, Sirin, & Stipek, 2003). Teacher characteristics have included their educational training, their level of experience, and their relationship with the child (Berg-Nielsen et al., 2012; Phillips & Downer, 2017). For these predictors, equivocal findings have emerged from the research. The occupational prestige of fathers, for example, was found to significantly influence the correlation between parents' and teachers' ratings of problem behavior in a large sample of kindergarten students, in that the higher the prestige, the greater the agreement between parents' and teachers' ratings (Gagnon et al., 1992). Phillips and Lonigan (2010) similarly found that parent-teacher agreement was higher for preschool children from middle income families than for children from low-income families. In other studies, however, family income was found to have no relation to the extent of parent-teacher agreement (e.g. Dinnebeil et al., 2013; Kolko & Kazdin, 1993).

Two child characteristics have been consistently found to influence the agreement between parents' and teachers' ratings on problem behavior: gender and race/ethnicity. In

early childhood, research suggests that parent-teacher agreement on problem behavior is greater for ratings of girls than boys (Berg-Nielsen et al., 2012; Gagnon et al., 1992; Winsler & Wallace, 2002). These differences have been attributed to gender bias of teachers, given that the majority teaching population is female and that, possibly, girls display more socially desirable behavior (Berg-Nielsen et al., 2012). Importantly, in their study of kindergarten children, Gagnon et al.'s (1992) findings suggest that gender is not an isolated predictor of parent-teacher agreement. Rather, the magnitude of agreement varies for boys and girls in relation to a combination of demographic and background characteristics, such as the race/ethnicity of the child. Relatedly, a child's race/ethnicity has explained patterns of agreement in parents' and teachers' ratings of problem behavior. In their examination of preschool students, Harvey and colleagues (2013) found lower parent-teacher agreement in ratings of problem behavior for children who are Black, relative to White children. This has been supported in other early childhood studies, showing that parent-teacher agreement is lower for Black (Phillips & Lonigan, 2010) and Latino children (Crane et al., 2013) than White children, likely due to the contribution of high problem behavior ratings by teachers for Black and Latino children.

An additional variable that may contribute to discrepancies in parents' and teachers' ratings of problem behavior is the mismatch, when this occurs, between the race/ethnicity of the child and the race/ethnicity of the child's teacher. This mismatch has the potential to result in discrepant views of behavior in that parents and teachers from different racial, ethnic, and/or cultural backgrounds may have different values and behavioral expectations (Lane et al., 2007). Wright and colleagues used student-teacher race matching as a proxy for "cultural synchronicity," described as the extent to which

cultural discontinuities lead students of color to be challenged by a schooling system that espouses White, middle-class standards of classroom behavior (Wright, Gottfried, & Le, 2017). They found that when students and teachers were of the same race, problem behavior declined .26 standard deviations, as reported by teachers. Thijs and Eilbracht (2012), in their study of this phenomenon, found that racial/ethnic differences between teachers and students contributed to teachers' negative perceptions of the parent-teacher alliance and higher ratings of students' problem behavior. They note that culturally-driven differences in behavior expectations of teachers and parents may have an especially critical impact for children displaying greater problem behavior, in that closer alliances with parents can provide teachers with needed, and important, child-specific information to effectively address behavioral challenges.

Purpose of the Study

The purpose of this study was to address a gap in the informant discrepancy literature related to the extent of parent-teacher agreement in early childhood in a nationally representative sample of kindergarten students with and without disabilities. Specifically, the study sought to understand the extent to which parents' ratings accord with teachers' ratings when teachers rate students as having moderate to severe problem behavior, while controlling for three factors that have been found by previous literature to impact parent-teacher agreement: the child's gender, the child's race, and the child's race match with their teacher. Thus, the study posed the following specific research questions:

Research Question #1: Overall, is there a difference between parents' and teachers' ratings on the problem behaviors of kindergarten children with and without IEPs? Based on previous research, I hypothesized that there would be a significant

difference between teachers' and parents' ratings, such that parents report more problem behavior than teachers.

Research Question #2: If a significant difference is found between parents' and teachers' ratings, do the magnitude and direction of the difference differ for students with and without IEPs, controlling for the child's gender, race, and the match or mismatch between the child's race and the teacher's? Based on the procedural requirements for IEP development that involve joint discussion of the child by the parent and the child's teacher, I hypothesized that parent-teacher agreement would be closer for students with disabilities than for students without disabilities, while the direction of the difference (teachers rate behavior more severely than parents) would be the same for both groups of students.

Chapter 2: Literature Review

Problem Behavior in Kindergarten

In the early childhood literature, problem behavior has been referred to as a range of behaviors that are disruptive and/or harmful to others, including oppositional and aggressive behaviors (Smidts & Oosterlaan, 2007). If diagnostic assessments (e.g., Social Skills Rating System, Gresham & Elliott, 1990; Preschool and Kindergarten Behavior Scales, Merrell, 1994) are used, externalizing problem behavior (hereafter referred to as “problem behavior”) is one class of behavior that refers to aggression (i.e., fighting), arguing, impulsivity, over activity, noncompliance, and lacking self-control. Gresham, Lane, MacMillan, and Bocolan (1999) defined students with externalizing problem behavior as those who deviate from a “model behavior profile” (p. 231); however, developing a consensus of such a profile, and what behavior is appropriate for whom, is regularly debated in literature across fields working with young children (Berg-Nielsen et al., 2012; Wakschlag, Tolan, & Leventhal, 2010) and results in problem behavior in early childhood settings being defined in a variety of ways. Also, variation in the definitions of problem behavior likely occur because “rating children’s behavior is a comparative task” (Dinnebeil et al., 2013, p. 151). In many circumstances, the behavior of children is evaluated in comparison to other children rather than a standardized norm. That is, parents are likely comparing their child’s behavior to that of their siblings or close friends while teachers may be comparing a child’s behavior to that of current and past students (Dinnebeil et al., 2013; Kerr et al., 2007). When perceptions are based on a comparison to other children, it results in some behavior seen as problematic for some children, but the same behavior in another child seen as comparably normal. Thus, it is

“difficult to tease apart whether differences [in behavior] are due to behavior differences or differences in the perception of the same behavior” (Harvey et al., 2013, p. 3).

Despite variation in how problem behavior is defined and evaluated, several researchers have estimated the prevalence of problem behavior in early childhood settings. Keenan and Wakschlag (2002), for example, estimated that approximately 8% of preschool-aged children display problem behavior at a severity level that warrants clinical diagnosis. Other studies provide evidence that the prevalence of problem behavior in early childhood may be much higher, likely between 14-30% (Montes, Lotyczewski, Halterman, & Hightower, 2012; Qi & Kaiser, 2003). The uncertainty regarding the perception of problem behavior in early childhood may be because it is much more difficult to identify clinically significant problem behavior in young children than it is in older children (Keenan & Wakschlag, 2002). Diagnostic assessments are often not standardized for the validation of problem behavior in young children and clinical observations are not as sensitive to the development of young children as they are in older children (Keenan & Wakschlag, 2002). Acknowledging this cautionary perspective, some researchers have commented on the sensitivity of diagnostic measures. Montes and colleagues (2012) note that if children do not qualify for intervention services, due to the fact that their problem behavior is not severe enough, they may not receive needed support and “fall through the cracks,” possibly “creating additional economic and societal costs in the future” (p. 548). Thus, how problem behavior is measured in early childhood may cause some children to miss opportunities for needed social-emotional intervention.

At the same time, caution must be exercised if a child is labeled or diagnosed with problem behavior in early childhood due to associated concerns. For one, presence of problem behavior impacts whether children have or will gain necessary social-emotional skills in kindergarten. Children with problem behavior are also more likely to be at greater risk of peer rejection and later deviant and delinquent behavior (Carney, Stratford, Moore, Rojas, & Daneri, 2015). Additionally, early social-emotional skill gaps between children likely lead to later behavior and academic achievement gaps between students (DiPrete & Jennings, 2012; Duncan et al., 2007; Garcia, 2015). Examining a national sample of kindergarten children, Montes and colleagues (2012) found that children with problem behavior were approximately 0.6 to 1 standard deviation behind their same aged peers in language, motor, play, and school (i.e., counting and letter naming) skills. In kindergarten, students who do not meet benchmarks for social-behavior readiness and/or display problem behavior are more likely to be retained in later grades, to be referred to and found eligible for special education services and supports, and to be suspended or expelled (Bettencourt et al., 2016; Crane et al., 2013; Speltz et al., 1999).

An additional area of concern is the potential that students with problem behavior will be removed from the classroom. Indeed, as the severity of their problem behavior increases, children are more likely to be suspended and expelled (Skiba et al., 2014). Recently it has been found that young children are being suspended and expelled at alarmingly high rates (Gilliam & Shahar, 2006; U.S. Department of Education, Office of Civil Rights [U.S. DOE OCR], 2014). This is a matter of great importance, given that when kindergarten students are suspended and expelled, they lose valuable opportunities for needed development and social-emotional growth (Losen & Gillespie, 2012) and may

experience negative academic and social outcomes in later grades such as grade retention, dropping out of high school, and incarceration (Briggs-Gowan & Carter, 2008; Lamont & Council on School Health, 2013; Morgan, Farkas, Tufis, & Sperling, 2008; O'Connor, Dearing, & Collins, 2011; Skiba et al., 2014). Out-of-school disciplinary action is increasingly becoming linked to bias in perceptions of problem behavior (Gilliam, 2016 and, consequently, disproportionate punishment of Black and/or male students, as well as students with disabilities (Losen, Ee, Hodson, & Martinez, 2015; Qi & Kaiser, 2003; U.S. DOE OCR, 2014). Other evidence notes that many young children are punished for behavior that is developmentally age-appropriate (Berg-Nielsen et al., 2012; Buck & Ambrosino, 2004; Cyphert, 2014; Gilliam, 2016; Wright & Ford, 2016). The sum of this issue is that while some children may be recognized as having problem behavior and receive needed support, others will be removed from school.

Finally, it is also worth noting that problem behavior in kindergarten is not just concerning because of consequences imposed on children. Problem behavior of young children also impacts families and teachers. For parents, raising a child with problem behavior may cause greater mental health problems and poorer problem-focused coping ability (Weiss, Cappadocia, MacMullin, Vecili, & Lunskey, 2012). Also, if the child's behavior is deemed severe enough to warrant suspension or expulsion, such removal may cause additional family stress and result in economic impacts associated with the need for parents to stay home from work to care for young children who are unable to be left home alone (Buck & Ambrosino, 2004; Cyphert, 2014). For their part, teachers who work with children with problem behaviors exhibit greater stress, higher burnout, and lower confidence in their classroom management self-efficacy (Aloe, Shisler, Norris,

Nickerson, & Rinker, 2014; Hastings & Bham, 2003). In fact, in studies which surveyed early childhood teacher training needs, more than 50% of the teachers believed they needed more training related to identifying and responding to problem behavior (Buck & Ambrosino, 2004; Snell, Berlin, Voorhees, Stanton-Chapman, & Hadden, 2011). Each of these concerns related to problem behavior highlights the need for accurate perceptions of problem behavior.

Parent-Teacher Agreement

Agreement between teachers' and parents' ratings on children's problem behavior has been widely studied over several decades as a way to ascertain more comprehensive, accurate perceptions of children's problem behavior. Empirically, in early childhood, discrepancies between ratings are most often measured by the correlation between parent and teacher measures of problem behavior and by *t*-tests and/or analyses of variance, which compare differences between raters (e.g. Dinnebeil et al., 2013; Gagnon et al., 1992; Winsler & Wallace, 2002). In some cases, difference scores are standardized in order to examine differences (Berg-Neilsen et al., 2012), a recommendation made to increase the interpretability of the score (De Los Reyes & Kazdin, 2004). Regardless of the empirical approach, parents' and teachers' ratings of problem behavior are often found to be discrepant. The extent of parent-teacher agreement have been noted to be one of "the most consistent, yet poorly understood phenomena in mental health research" (De Los Reyes et al., 2009) and in need of greater understanding (De Los Reyes, 2011). In his introduction to a special section of the *Journal of Clinical Child and Adolescent Psychology*, De Los Reyes (2011) notes that there are multiple ways to empirically examine informant discrepancies but that, ultimately, research should "use the findings

from this basic research to develop methods for increasing the interpretive power of informant discrepancies within clinical assessment of children” (p. 8).

The most frequently referenced study of parent-teacher agreement is a 1987 meta-analysis of informant discrepancies (Achenbach, McConaughy, & Howell, 1987). Despite decades of research that have followed the meta-analysis, it remains a seminal contribution due to three major findings that continue to be consistently confirmed by other researchers. First, low-to-moderate correlation between parents’ and teachers’ ratings of children’s problem behavior is a frequent finding (Berg-Nielsen et al., 2012; De Los Reyes et al., 2015; Gresham, Elliott, Cook, Vance & Kettler, 2010). The lack of correlation between raters is often seen as unremarkable and unsurprising to researchers. As such, more recent research has strayed from how to bring teachers and parents to consensus and, instead, there is genuine interest in whether we can learn something from the factors and patterns of disagreement between parents and teachers (de Greef, Pijnenburg, Hattum, McLeod, & Scholte, 2017). Second, situational specificity is commonly used to explain informant discrepancies and refers to the fact that children may behave differently at home than at school, meaning there are likely contextual differences in children’s behaviors that contribute to informant discrepancies (De Los Reyes, Tolan, & Wakschlag, 2009). Hartley, Zakriski, and Wright (2011) made a significant contribution to the field’s understanding of situational specificity, noting that contextual differences in the way children behave make it difficult to compare raters’ interpretations of problem behavior. Finally, it is difficult to know whether it is parents or teachers who report problem behavior most accurately (Ferdinand et al., 2007). In sum, rater variation has contributed to inconsistencies in whether informant discrepancies are

regarded as more than measurement error and can be attributed to meaningful differences in ratings (De Los Reyes, 2011; Hartley et al., 2011).

Parent-Teacher Agreement and Special Education Status

There are few studies that compare the extent to which parents' ratings on children's problem behavior accord with teachers' ratings for young children who have or have not been identified as students with disabilities. Dinnebeil and colleagues (2013) compared the problem behavior and social skills of 303 children in early childhood programs, as rated by their parents and teachers. Within the sample, 56% of children were students with disabilities. Agreement between parents and teachers was not greater for students with disabilities from their same-aged peers, although parents and teachers both rated students with disabilities as having greater problem behavior, overall, than the group without disabilities (Dinnebeil et al., 2013). This finding is consistent with findings from Korsch and Petermann (2014), who found no correlation between parents and teachers and that greater problem behavior was reported in clinical (those with behavior-related diagnoses) than those in a non-clinical sample.

Other studies examining parent-teacher agreement in this population have been limited to children who share the same category of eligibility for special education services. For example, in a meta-analysis, Stratis and Lecavalier (2015) examined children with autism and intellectual disabilities, finding only five studies that included preschool-aged samples and nine studies of school-aged (age 5-12) samples. The analysis showed consistent findings to parent-teacher agreement for children without disabilities in that agreement between raters fell in the low to moderate range ($r = .42$). Also, while parent-teacher agreement on internalizing behaviors and social skills was higher for

younger children with these disabilities, the same pattern was not found for externalizing problem behavior (Stratis & Lecavalier, 2015). In a study of preschool children in Ontario, Hundert and colleagues (1997) explored whether the severity of a child's developmental delay (a category of eligibility for special education for young children) impacted parent-teacher agreement. These researchers found that agreement between parents' and teachers' ratings was highest in the group with severe developmental delays, moderate in the mild developmental delay group, and not significant in a typically developing group (Hundert et al., 1997).

Disability, Race, and Gender

Only a handful of studies have included race and gender in their analysis of parent-teacher agreement for students with disabilities. Dinnebeil and colleagues (2013) found that among child disability, maternal education, family income, and child ethnicity, only child disability predicted congruence between parent and teacher social skills ratings and children with disabilities were rated more similarly than those without, regardless of their race/ethnicity (Dinnebeil et al., 2013). Crane, Mincic, and Winsler (2011) examined parent-teacher agreement in a large sample of young children ($n = 7,756$, ages 3-4) as it related to the child's disability, gender and race. The authors found evidence that children with the most severe disabilities had the most significant differences in parents' and teachers ratings and that there was no significant interaction effect of gender and ethnicity on disagreement between parents and teachers. Although disability, gender, and race were all considered in the study, they were not entered into the same analysis, making it impossible to draw conclusions about the interaction effects of all three characteristics. Additionally, these authors did not report the decision rules used to

categorize children as having a severe delay. Lastly, Murray et al. (2007) reported that parent-teacher agreement was better for children (ages 3-5) of ethnic minority groups than for White children, regardless of gender in a sample of children with Attention-Deficit Hyperactivity Disorder (ADHD). However, this study did not compare these results to parent-teacher agreement of children with other types of disabilities or children without disabilities. In sum, this literature points to some influence of race and gender on parent-teacher agreement in samples of children with disabilities.

Summary

Despite some attention to informant discrepancies in early childhood for children receiving special education services and supports, most studies have focused on samples of children who are typically developing. There is limited literature related to children with disabilities, and even fewer published studies regarding the role gender and race play when investigating parent-teacher agreement in this population.

Assessing problem behavior is a difficult task. While using multiple informants' ratings may be a way to achieve more accurate assessment of problem behavior, for decades, discrepancies have been found between such ratings. Based on the literature review, when parents and teachers rate children's problem behavior, their ratings are not, or, at best, moderately correlated. Research has shown how differences in ratings can be influenced by many factors including variation in the child's behavior across contexts, the cultural norms through which parents and teachers may view the child's behavior, and multiple characteristics of the parents, teacher, and child.

Chapter 3: Method

Data Source

The ECLS is a multi-source, multi-method, and multi-informant study aimed at collecting national data about elementary school children. Data about children's development, school readiness, and early school experiences were collected under the auspices of the National Center for Educational Statistics (NCES) in three longitudinal studies: the ECLS birth cohort (ECLS-B), the ECLS kindergarten cohort of 1998-99 (ECLS-K:1999), and the ECLS kindergarten cohort of 2010-11 (ECLS-K:2011). Participating schools were selected from a database of private and public schools housed by the National Assessment of Educational Progress (NAEP). Data for the ECLS-K:2011 base year were collected in the fall and spring of 2010-11. In total, the baseline kindergarten analysis wave in the ECLS-K:2011 consists of 18,170 students and more than 750 variables. In order to access many of the variables needed in this study, a formal request for the restricted-use ECLS-K:2011 data was completed and a License Agreement for the project was approved by the Institute of Education Sciences (IES) on June 20, 2017. Institutional Review Board approval for the study was obtained on July 17, 2017 (ID: 20170651) from the Human Subject Research Office at the University of Miami.

The ECLS-K:2011 focuses on the relationships between the child, family, school, and community and includes direct measures of children's academic performance, parent and teacher measures of behavior, and additional data on child, parent, school, and teacher characteristics. Data were obtained from children, parents, school administrators, teachers, and after school care providers. Parent interviews were conducted either over

the phone or in person with the person in the household who knew the most about the child (Tourangeau et al., 2015). Parent interviews focused on parents' involvement in school, children's participation in out-of-school activities and child health and well-being. Child-level teacher questionnaires collected information specific to each child participating in the study regarding their academic/cognitive abilities, behaviors, social skills, and relationships. Teacher-level questionnaires collected information on the teacher's instructional practices, beliefs, background, and characteristics. Special education teacher questionnaires were completed for children with an IEP and related to the special education teacher's background and child-level information such as the child's disability, placement, and services received.

Selection of the Sample

The current study used a subset of children from the ECLS-K:2011 dataset. The analytic sample included participants whose teachers' ratings of problem behavior in the Spring of their kindergarten year indicated moderate to significant problem behavior. The teacher-reported measure of externalizing problem behavior (*tchbeh*) was used to identify students whose mean of five item-level scores, each of which had a range of 1 to 4 (with higher scores indicating greater problem behavior) was equal to or greater than 2. This cut score identified children in the top 25th percentile which, based on previous research, meant that students with moderate to significant problem behavior were retained in the analytic sample. For example, using the ECLS-K:1999, Datar and Sturm (2004) asserted that using the 95th percentile or higher on the measure of externalizing behavior, as rated by teachers, would identify students who are "sufficiently symptomatic to warrant at least a psychological examination" (Datar & Sturm, 2004, p. 805). In the Preschool and

Kindergarten Behavior Scales (PKBS; Merrell, 1994), students who score in the 59th percentile rank or higher are considered to have moderate to significant problem behavior, as measured by teacher ratings. Finally, when using the Child Behavior Checklist (CBCL; Achenbach, 1992), Kerr et al. (2007) used a *T* scores greater than 60 to identify preschool children with “medium to high” levels of problem behavior, consistent with the measure’s recommendations that a *T* score greater than 60 represents children in the borderline/clinical range of problem behavior, a level consistent with the 80th percentile or higher (Achenbach & Rescorla, 2000). Additional support for the inclusion of children in the 25th percentile comes from examination of the meanings assigned to the score options for the items that were used to compute the scaled externalizing problem behavior score. The frequency options denoted by the values of 1 to 4 were defined as “never”, “sometimes”, “often”, and “very often,” respectively. Therefore, in order for a child to have a mean score equal to or greater than 2, their total score on five individual items must combine to equal 10, a combination that would most likely require some combination of “sometimes” (2), “often” (3) or “very often” (4).

Variables

Teachers’ rating of problem behavior. Variables in the ECLS-K:2011 that relate to children’s problem behavior were measured by items derived from the Social Rating Scale (SRS) within the ECLS-K:2011. SRS items were based on items from the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) and provided teachers the opportunity to report how often the child exhibited certain social skills and behaviors using the aforementioned four-option frequency scale ranging from “never” to “very often” (Tourangeau et al., 2015). The teacher rating of child challenging behavior

(*tchbeh*) is the mean of the five item-level scores for externalizing problem behavior, rated at the end of the child's kindergarten year (Spring 2011). Item-level scores of children's problem behavior were rated by the child's assigned classroom teacher, and not any other informant (i.e. paraprofessional, special education teacher, administrative staff). A total score was computed if the teacher responded to at least four out of five items. Due to copyright restrictions and the NCES agreement with the copyright holder, NCS Pearson (1990), individual item wording and scores can only be released to restricted-data license users and will not be available until the summer of 2018. However, given that it was explicitly stated that the five items are drawn directly from the SSRS, and item wording has not changed significantly since the ECLS-K:1999, a review of the SRS items in the ECLS-K:1999 suggests that teacher items of externalizing problem behavior in the ECLS-K:2011 can be understood to include ratings related to acting impulsively, disrupting activities, fighting with others, arguing with others, and becoming angry.

Parents' rating of problem behavior. For parents, items derived from the SRS, based on the SSRS, also measured children's problem behavior. Items were also reported on a four-option frequency scale from "never" to "very often". The parent rating of children's problem behavior (*prnbeh*) is a composite variable, formed by the mean of the score of two variables, reported by the parent at the end of the student's kindergarten year (Spring 2011): impulsivity (*prnimp*; 2 items) and self-control (*prncon*; 5 items). The use of composite scores is warranted when the measures being used are correlated and there is conceptual support for creating a parsimonious measure (Anglim, 2009). Mean scores of the two parent-report items addressing impulsivity (*prnimp*) and mean reverse-coded

scores of the five parent-report items addressing self-control (*prncon*) in the ECLS-K:2011 are moderately correlated ($r = .43$). (The *prncon* values were reverse coded because for these items, *lower* values indicated more negative behavior.) Similar to teacher-reported items of problem behavior, due to copyright restrictions, individual item wording and scores are not currently available. However, a review of the SRS items in the ECLS-K:1999 suggests that parent items can be understood to include ratings related to impulsivity and hyperactivity for the measure of impulsive/overactive behavior and, for self-control, related to fighting with others, controlling one's temper, arguing with others, becoming angry, and having tantrums. Thus, the two parent reports of problem behavior measure behavior problems similar to problem behavior reported by teachers, providing conceptual support for creating a composite measure. Table 1 displays descriptive statistics for the two measures of children's problem behavior used in the current study.

Table 1

Measures of Teacher- and Parent-Reported Problem Behavior (Spring 2010-11)

Variable	Description	Range	Number of items	Reliability coefficient	Unweighted Means	
					ECLS-K:2011 Sample ($n = 18,170$)	Study Sample ($n = 3,310$)
<i>tchbeh</i>	Teacher report problem behavior	2-4 ^a	5	.89	1.64	2.44
<i>prnbeh</i>	Parent report of problem behavior (Composite)	1-4	7	.78 ^b	1.98	2.18

Note. ^a Cases were only included in the analytic sample if *tchbeh* was greater than 2, restricting the variable range. ^b Cronbach's alpha of *prnbeh* derived from ECLS-K:1999 item-level data.

Table 2 displays the correlation between the teacher measure of problem behavior (*tchbeh*), the variables used to create a composite measure for parent reported problem behavior (*prnimp*, *prncon*), and the composite measure of parent reported problem behavior (*prnbeh*).

Table 2

Correlations among Teacher- and Parent-Reported Problem Behavior Measures

Factor	Full sample ($n = 18,170$)				Study sample ($n = 3,310$)			
	1	2	3	4	1	2	3	4
1. <i>tchbeh</i>								
2. <i>prnimp</i>	.286**				.178**			
3. <i>prncon</i>	.217**	.432**			.137**	.437**		
4. <i>prnbeh</i>	.301**	.892**	.793**		.189**	.895**	.792**	

** $p < .01$, two-tailed

To provide further support for the validity of the composite score for the parent report of problem behavior, the item level data in the ECLS-K:1999 for parent-reported measures of children's behavior were examined. Although this represents a different cohort of children, the seven items that make up the parent report of self-control and impulsivity in the ECLS-K:2011 are the same. First, there was a significant correlation between the mean score of the items on the parent reports of impulsivity (*prnimp99*) and the mean score of the items on the parent report of self-control (*prncon99*) in the ECLS-K:1999 ($r = .43$, $p < .001$). Table 3 displays the inter-item correlation matrix for the seven items in the ECLS-K:1999.

Table 3

Item Correlations for Impulsivity and Self-Control Items in the ECLS-K:1999, Spring 1999 (n = 21,260)

Item	1	2	3	4	5	6	7
1. Item1(<i>prnimp99</i>)							
2. Item2(<i>prnimp99</i>)	.207						
3. Item1(<i>prncon99</i>)	.217	.466					
4. Item2(<i>prncon99</i>)	.331	.313	.300				
5. Item3(<i>prncon99</i>)	.351	.370	.367	.482			
6. Item4(<i>prncon99</i>)	.162	.262	.211	.236	.291		
7. Item5(<i>prncon99</i>)	.208	.224	.196	.318	.313	.307	

Note. All correlations significant at the .01 level.

Second, a principal axis factor analysis was used to identify the number of factors underlying the seven items. In order to determine whether the ECLS-K:1999 sample was adequate for the use of factor analysis, the Kaiser-Meyer-Olkin (KMO) statistic was examined. The KMO test suggested the sample was suitable for factor analysis as the statistic, which measures the proportion of variance among variables that might be common variance, was .811, above the commonly recommended value of .6. Additionally, Bartlett's test of sphericity was significant ($\chi^2(21) = 23400.74, p < .01$) indicating distinct and reliable items, making factor analysis appropriate with these data. Further, the communalities, which describe the extent to which an item correlates with the other items, were all between .29 and .56, suggesting all the variables may load significantly onto one factor. Finally, Cronbach's alpha for the seven items was .78, indicating internal consistency among the seven items. The principal axis factor analysis of the item-level data provided support that, taken together, the seven items represent one factor. The scree plot (see Figure 1) shows a leveling off of eigenvalues after the first factor, suggesting the first factor accounts for most of the variance in the data. Only one

factor had an eigenvalue greater than 1, explaining 39.7% of the variance. Also, the factor loadings were all above .53. Although most sources which describe the interpretation of factor analysis do not provide generalizations regarding acceptability thresholds, a meta-analysis by Peterson (2000) found that on average, most studies found the first factor accounted for 28.2% of the variance and factor loadings across the factor analyses were .32.

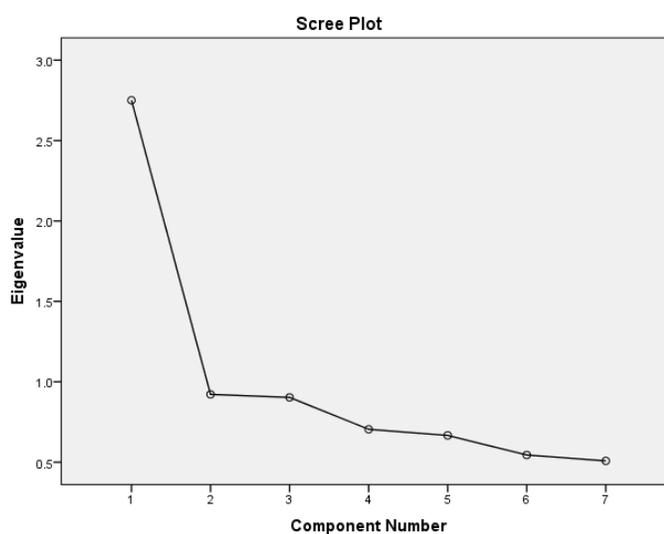


Figure 1. Scree plot of seven items from measures of impulsivity and self-control in the ECLS-K:1999

Special Education Status

Of primary interest in this study are differences between students with and without disabilities. Data available from the special education teacher questionnaire and Field Management System (FMS) that were provided in the ECLS-K:2011 were used to determine whether students were receiving special education services and supports. The FMS are administrative records or existing data sources that provides information on schools, school staff, and children. Specifically, students were identified as receiving

special education services and supports if they a) had a special education teacher assigned to them (D2T_ID), b) had an IEP on file (T2IEP), or c) were designated as a student receiving special education services (T2SEDSV, E2RECSPE).

Analytic Approach

Study design weights. The ECLS-K:2011 follows a multistage stratified sampling design and includes design weights to account for unequal probabilities of selection and non-response effects. When used in analyses, the weights weight the sample size up to the population total of interest in order to produce national-level estimates. Without weighting the sample, differential nonresponse patterns may lead to bias in the estimates. The use of weights, then, minimizes bias in estimates and allows researchers to produce representative estimates and generalize findings to the intended population, in this case, children who were in kindergarten in 2010-11 (Tourangeau et al., 2015; U.S. Department of Education, 2012). The sample weight should “maximize the number of sources of data included in the analysis for which nonresponse adjustments are made, which in turn minimizes bias in estimates” (p. 4-15, Tourangeau et al., 2015). The two sources of data used in this analysis are the Spring 2011 kindergarten child-level teacher questionnaires and the Spring 2011 parent interview. The study sample was chosen based on teacher-reported ratings of problem behavior; therefore, there are no data missing for the teacher-reported variable used in the analysis and no weighting is indicated. In contrast, using a weight that would adjust for nonresponse in data from parent interviews is indicated. The weight used in the analysis is labeled W2P0 and described in the ECLS-K:2011 manual as the “child base weight adjusted for nonresponse associated with the spring kindergarten parent interview” (Tourangeau, et al., 2015, p. 4-1). Selection of the

weight was guided by the ECLS-K:2011 user manual and IES Data Security (J. McCarroll, personal communication, February 21, 2018).

The weight, W2P0, was applied to the analysis sample using a two-step approximation method (Hahs-Vaughn, 2005; IES, 2015). First, because the weights provided in the ECLS-K:2011 data files sum to population totals and not sample totals, the first step in effectively applying the weight chosen is to normalize the weights so standard error is based on the actual sample size ($n = 3,310$) rather than population size. The normalized weight is calculated using the following formula:

$$\text{Normalized weight} = (\text{ECLS-K weight}) * (\text{sample } n / \text{population } N)$$

So, for this analysis, the normalized weight was calculated as:

$$\text{W2P0_normalized} = (\text{W2P0}) * (3,310 / 1,010,820.895)$$

where the population N is the sum of the ECLS-K weights of the sample.

The ECLS-K:2011 uses a complex sample design and not a simple random sample design. Thus, the second step to effectively apply the sample weight is to “include design effects in conjunction with the normalized weight to recognize and adjust for potential dependence among observations” (p. 226, Hahs-Vaughn, 2005). The *design effect* (*DEFF*) is defined as a ratio of the variance estimate under the actual sample design to the variance estimate that would be obtained with a simple random sample of the same sample size:

$$DEFF = \text{VAR}_{\text{DESIGN}} / \text{VAR}_{\text{SRS}}$$

The *DEFF* used in this analysis was associated with the survey items related to parent-reported problem behavior (X2PRNIMP, *DEFF* = 1.840; X2PRNCON, *DEFF* = 2.244) provided by in the ECLS-K:2011 User Manual (see Table 4-10, Tourangeau, et al.,

2015). In the current study analysis, the dependent variable associated with the parent-reported problem behavior is a composite of the two items. Of note, it is appropriate to use the average design effect for a set of variables as a weight (Hahs-Vaughn, 2005).

Thus, the *DEFF* applied in this analysis was:

$$(DEFF_{X2PRNIMP} + DEFF_{X2PRNCON}) / 2 = 1.840 + 2.244 / 2 = 2.042$$

Missing data. The sample weight includes adjustment for both disproportionate sampling and nonresponse associated with the spring kindergarten parent interview was applied to the analysis (personal communication, J. McCarroll, March 2, 2018). As an additional precaution to ensure generalizability of the findings, differences between the cases with complete data versus missing data were examined. As noted above, the study sample was chosen based on teacher-reported ratings of problem behavior and as such, there is no data missing for the teacher-reported variable used in the analysis. However, a total of 1,300 children were missing data from parent interviews, resulting in a missing composite score for parent-reported problem behavior. Chi-square tests and independent sample *t*-tests were conducted to investigate differences between records with a missing parent composite score, *prnbeh* (i.e. missing data in either or both measures of parent-reported problem behavior), and records with a composite score, *prnbeh* (complete data). There were no statistically significant differences between the group with missing data and group with complete data with regard to the child's gender, the type of school the child attended (private vs. public), whether the child was receiving special education services and supports, and alternate measures of social skills available in the ECLS-K:2011 (teacher- and parent-reported approaches to learning). There was, however, a statistically significant difference in the distribution of children's race in the records with

and without missing data, ($\chi^2(5) = 123.921, p < .01$), such that there was less than expected missing data for White children and there was more than expected missing data for Black and Hispanic children, as ascertained by examining the adjusted residuals in a follow-up contingency table. There was also a statistically significant difference between the records with missing data and records with complete data on teacher-reported problem behavior ($F(1, 4610) = 19.71, p < .01$), such that the group with missing data had slightly more problem behavior than the group with complete data ($M = 2.50$ vs. $M = 2.45$, respectively, mean difference = .05). The effect size of these differences was very small (child race, Cramer's $V = .16$; teacher-reported problem behavior, Cohen's $d = .10$); however, caution should be exercised when generalizing results to the population. Appendix A displays the comparisons between the groups with complete vs. missing data.

Statistical analysis. Data were analyzed using IBM Statistical Package for the Social Sciences (SPSS) Statistics for Windows, Version 24. To address the research questions, a 2 (rater) by 2 (special education status) by 2 (gender) by 2 (child's race) by 2 (child's race match to teacher's race) mixed design analysis of variance (ANOVA) was conducted. Rater was a within-subjects variable; all others were between-subjects variables, with child's gender, child's race, and the child's race match to teacher's race included as control variables, in an attempt to reduce their effect as confounding variables.

Using this data-analytic approach, the first research question, concerning the extent of parent-teacher agreement for the whole sample, is addressed through interpretation of the main effect for rater on the problem behaviors of kindergarten

children. The second research question, concerning the difference in parent-teacher discrepancies between students with and without IEPs, is addressed through interpretation of the interaction of rater and special education status. In the necessary post-hoc comparisons to ascertain the magnitude and direction of the differences in parent-teacher agreement for children with and without IEPs, the Bonferroni correction was used since it is robust to unbalanced designs (Lomax, 1992).

Chapter 4: Results

The following sections provide a profile of the study sample and present the results of this study. All reported numbers are rounded to the nearest ten, as required by the IES Data Security Office.

Characteristics of the Sample

In the analytic sample ($n = 3,310$), a total of 450 students (13.8%) were identified as students who were receiving special education supports and services. Of note, this percentage closely mirrors the reported 14% of kindergartners with disabilities in the U.S. population (U.S. Department of Education, 2016). In comparison to the entire national sample of kindergarten children surveyed in the ECLS-K:2011 ($n = 18,170$) which was 51.5% male, the analytic sample was 65.4% male.

Approximately half of the children in the analytic sample were White (50.4%), followed by Hispanic students (21.9%), and Black students (15.5%). The percent of students whose race/ethnicity matched their teacher's was 58.4%. Appendix B displays a comparison of the number and percent of students in each subgroup for the analytic sample and the full ECLS-K:2011 sample.

Analytic Findings

The dependent variables of interest in the current study were teachers' and parents' ratings of children's problem behavior. Table 4 displays the descriptive statistics associated with the teachers' and parents' ratings of problem behavior for categories of each factor included in the model.

Table 4

Parents' and Teachers' Mean Ratings of Children's Problem Behavior

Factor	Rating of Problem Behavior		Difference
	Teacher (<i>tchbeh</i>) M (SD)	Parent (<i>prnbeh</i>) M (SD)	(Teacher minus Parent) M (SD)
Special education status			
Students without an IEP	2.43 (.51)	2.16 (.53)	.26 (.66)
Students with an IEP	2.50 (.52)	2.31 (.59)	.19 (.70)
Gender			
Male	2.47 (.52)	2.22 (.55)	.26 (.68)
Female	2.37 (.48)	2.12 (.51)	.24 (.65)
Race			
White	2.42 (.50)	2.18 (.52)	.24 (.64)
Hispanic	2.41 (.51)	2.19 (.57)	.22 (.72)
Black	2.56 (.57)	2.19 (.56)	.36 (.72)
Asian	2.27 (.35)	2.06 (.49)	.21 (.57)
Other	2.48 (.51)	2.24 (.52)	.24 (.66)
Teacher-child race match			
Match	2.42 (.50)	2.18 (.53)	.23 (.65)
Mismatch	2.45 (.52)	2.17 (.55)	.28 (.69)
Overall	2.44 (.51)	2.18 (.73)	.25 (.67)

Note. Other (Race) includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Two or More Race categories.

Table 5 displays the ANOVA results for the within-subjects factor, the between-subjects factors, and the 2-way interaction effects of rater with each of the control variables. Results of the ANOVA indicated a significant main effect for rater, $F(1, 3120)=62.31, p<.001, \eta^2=.19$, providing evidence for the existence of significant differences between parents' and teachers' ratings. The mean rating of teachers was .21 score point greater than the mean ratings of parents. Controlling for the effects of child's gender, child's race, and the match of the child's race to the teacher's race, there was no significant rater by special education status interaction effect, $F(1, 3120) = 1.75, p = .187$.

Thus, no support was found for the hypothesis that agreement between parents' and teachers' ratings of children's problem behavior would be greater for children with IEPs than for children without IEPs. Although it does not directly answer one of the study's research questions, it is also worth noting there was a significant interaction effect between rater and child's race, $F(1, 3120) = 3.56, p = .006, \eta^2 = .01$.

Table 5

Mixed ANOVA Results

Source of Variation	Sum of Squares	df	MS	F	p
Between subjects	507.78	3130			
Special education status	3.08	1	3.08	19.40	.000
Child's gender	5.63	1	5.63	6.13	.000
Child's race	3.88	4	.97	35.51	.000
Teacher-child race match	.071	1	.07	.45	.505
Error	495.12	3120			
Within subjects	358.46	3130			
Rater	6.97	1	6.97	62.31	.000
Rater*Special Education Status	.20	1	.20	1.75	.187
Rater*Child's gender	.11	1	.113	1.01	.315
Rater*Child's race	1.61	4	.403	3.56	.006
Rater*Teacher-child race match	.16	1	.16	1.43	.231
Error	349.41	3120			
Total	866.24	6250			

Chapter 5: Discussion

This study examined parent-teacher agreement in a sample of kindergarten children with teacher-reported moderate to severe problem behavior. Results of the data analyses revealed a significant difference between raters, in that teachers rated children as having greater problem behavior than parents. However, the results showed no difference in the extent of agreement between parents and teachers for kindergarten children with IEPs versus without IEPs, after controlling for three factors which are known to influence parent-teacher agreement: the child's gender, the child's race, and the child's race match/mismatch with their teachers.

Parent-Teacher Agreement

This study adds to the literature on parent-teacher agreement by providing support for the existence of a discrepancy between parents' and teachers' ratings of problem behavior in young children. In this nationally representative sample of kindergarten children with teacher-identified moderate to severe behavior problems, teachers rated students approximately two-thirds of a standard deviation higher on problem behavior than did parents (mean difference = .25 point on the 1 to 4 scale, $SD = .67$). Previous studies that used samples of children across the range of behavioral manifestations, from no behavior problems to severe behavior problems, have reported that parents' ratings of young children's problem behavior are higher than teachers' ratings (Dinnebeil & Rule, 1994; Gagnon et al., 1992; Winsler & Wallace, 2002). However, when studies have focused on children with more severe levels of problem behavior, they have found that teachers' ratings are higher than parents' ratings (e.g. Berg-Neilsen et al., 2012; Hundert et al., 1997; Korsch and Petermann, 2014). Taken

together, these findings suggest that the direction of the rater discrepancy for children with more severe behavior (i.e., teacher rating is greater than parent rating) may be masked in samples that include a preponderance of children who do not display significant problem behaviors.

Moreover, the present study's finding of significant rater difference refutes the findings of previous studies which suggest that parent-teacher discrepancies are smaller for children exhibiting more severe problem behavior. On this view, more severe problem behavior should be more easily recognized and thus, in a sample of children with severe problem behavior, parent-teacher agreement would be greater (De Los Reyes et al., 2009). Though the present study did not compare parent-teacher agreement for children with different levels of problem behavior, including no problem behavior, the finding suggest that even for children demonstrating more severe problem behaviors (according to teachers), there is still a significant gap between parents' and teachers' perceptions.

Parent-Teacher Agreement and Special Education Status

The special education regulations for parents and teachers to build an IEP based on a present level of performance (IDEA, 2004) suggest that parent-teacher agreement on problem behaviors would be greater for children determined eligible for special education services than for their same-aged peers not receiving services. The hypothesis of the present study was that, given increased opportunities for parents and teachers to share information during the IEP process, parent-teacher agreement for children receiving special education services and supports would be greater than for children who were not. The results of this study, however, indicated no difference in the level of agreement

between parents and teachers for children receiving special education services and supports versus those who are not.

The lack of stronger rater congruence for children with disabilities versus children without disabilities in this study may suggest the need to strengthen the provisions of IDEA, in that the finding of parent-teacher discrepancies suggests inconsistent promotion of parent-teacher collaboration and shared assessment and decision making (Adam & Levy, 2017; Diamond & Squires, 1993; Mueller, 2009). On the other hand, the finding may be interpreted as supporting the idea that agreement is not necessary, or even to be expected, when attempting to gain a comprehensive view of the child's behavior, as each perspective provides meaningful and complementary information (De Los Reyes, 2011). As such, the findings may be interpreted as supporting the need for multiple informants when planning special education services.

It is notable that in this sample of students with teacher-identified moderate to severe behavior problems, only a small proportion (14%) were receiving special education services and supports. Why some children are referred to services and others are not, despite similar ratings of problem behavior, speaks to concerns regarding the special education referral process and, in particular, to reconsideration of the teacher's pivotal role in referral and discipline decisions. Fish (2017) examined the important role of teachers' decision-making process about which children are referred for special education evaluation. This was an important undertaking given that 75% of referrals to special education originate with teachers (Lloyd, Kauffman, Landrum, & Roe, 1991) and that upwards of 90% of students who are referred by teachers are found to be eligible for special education (Harry & Klingner, 2007). Using a vignette survey design that

manipulated teachers' perceptions of the child's race and English language learner (ELL) status, Fish found that teachers' perceptions of the child's race and ELL status contributed to their decision-making related to whether to refer students for special education evaluation. Although children were described as having identical behaviors, students whom teachers perceived to be students of color were more frequently deemed to be candidates for referral than were students perceived to be White.

The aforementioned findings raise concerns related to the finding in the present study of a significant rater by race interaction effect. Specifically, the study found that there was greater disagreement between parents' and teachers' ratings of problem behavior of Black students than of their White, Hispanic, and Asian peers. The present study's finding that teachers' ratings were higher than parents' ratings for children with problem behavior adds support to the research on the disproportionate referral and representation of Black students in special education (Harry & Klingner, 2007; Skiba, Poloni-Staudinger, Simmons, Feggins-Azziz, & Chung, 2005).

Implications for Practice

Combatting the aforementioned biases may require implicit bias training and appropriate teacher training regarding developmentally normative behavior for young children. Additionally, a team-based approach in which a parent and teacher work together to address a child's problem behavior may lessen the potential negative consequences of problem behavior for children, families, and teachers. In one study, for example, researchers found that schools following a team-based approach that included parents led to greater understanding by school personnel of the context and meaning of students' behaviors, and to lower rates of use of long-term suspensions (Cornell, Allen, &

Fan, 2012). As another example, in a model of parent partnership, Kuhn, Marvin, and Knoche (2016) found qualitative support that information sharing between teachers and parents related to observations and knowledge was an effective way to address the needs of young children with problem behavior. Collaborative communication between parents and teachers of children in day care settings, are posited to predict greater participation and engagement of young children (Lang, Tolbert, Schoppe-Sullivan, & Bonomi, 2016). In their study, Lang et al. (2016) found that offering information through bidirectional communication between teachers and parents of day care children led to the strengthening of care for children, allowing “both parties to make more informed choices when making care decisions” (p. 49) that promote positive social emotional outcomes for children. In the child and family studies literature, positive parent-professional alliance, defined by affective and collaborative aspects of the relationship between parents and their child’s mental health provider (i.e. counselor, therapist, psychologist), has been consistently found to be a predictor of positive treatment outcomes of children (de Greef et al., 2017).

Implications for Policy

Fewer than half of children attend kindergarten with prior formal preschool education. When they do, there are significant disparities in program quality, resulting in substantial variation in children’s kindergarten readiness (Garcia, 2015). Compared to parents of children without problem behavior, parents of children with problem behavior are more likely to report that their child was not ready for kindergarten (Montes et al., 2012). The selected sample of children representing approximately 18% of the total ECLS-K:2011 sample, were those whose teachers reported moderate to severe problem

behavior, suggesting these students are not meeting the social-emotional benchmarks for kindergarten. Current intensification and focus on academic benchmarks often means behavioral intervention is not prioritized (Phillips & Downer, 2017) and that requests for academic supports are more palatable (Fish, 2017). Teachers' decreased instructional tolerance for problem behavior that interferes with academic demands (Gerber, 1988) is evidenced in increased out-of-school discipline practices for young students (Gilliam, 2016) or the counseling out of students on the basis of behavior to avoid being accountable for poor academic performance in choice systems or states where kindergarten is not compulsory (Passero & Jones, 2015). This exclusion may be exacerbating disadvantages for Black and/or male, as well as students identified as having disabilities. Indeed, previous data show that Black students represent 18% of early childhood program enrollment, but 48% of students suspended more than once (U.S. DOE OCR, 2014). Of all young children suspended more than once, 82% are boys and 17% are students with disabilities (Losen & Gillespie, 2012; U.S. DOE OCR, 2014).

Early childhood is recognized as a critical time for problem behavior in school to be prevented and treated and there are many programs that can be implemented in classrooms to support positive behavior. In a review of forty-nine early childhood programs that addressed children's problem behavior, 65% were found to have positive, statistically significant, beneficial impacts, that is, a reduction of problem behavior (Carney, Stratford, Moore, Rojas, & Daneri, 2015). Policies that ensure social-emotional curriculum are being implemented and teachers are required to have training in positive behavior support could directly benefit kindergarten students and teachers.

Implications for Research

For a better understanding of parent-teacher agreement in samples that include young children with IEPs, there are several important directions for future research to consider. The first is examining parent and teacher expectations related to behavior. Positing that clear, explicit expectations of both parent and teacher facilitate a positive educational experience for young children, Lane and colleagues (2007) studied how parents and teachers converge and diverge in their expectations of young children's behavior. These authors have asserted that it is important for informants "to identify their disagreements to determine if their [problem behavior] ratings are biased by their view of children or if the children behave differently in different settings" (p. 95). Second, research should longitudinally study parent-teacher agreement for children with and without IEPs. For children with IEPs, it would be advantageous to examine differences in parent-teacher agreement for students who have IEPs that address problem behavior versus students whose IEPs do not, and also to examine parent-teacher agreement for students differing in their category of eligibility for special education services (e.g., Developmental Delay, Specific Learning Disability, Intellectual Disability, etc.) It may also be informative to know when a child's IEP was put in place, so as to investigate whether parent-teacher agreement is higher for students who received special education services in preschool.

Finally, discrepancies in parent-teacher agreement represent a complex phenomenon that is understudied in early childhood special education. Although research using data from large, national studies such as the ECLS can shed light on the magnitude and direction of parent-teacher discrepancies, other data sets and methodological

approaches will be needed in order to understand the phenomena that give rise to these discrepancies. Specifically, there is a need for qualitative research to understand how and why parents and teachers rate children's problem behavior in the ways that they do. For example, Burkey and colleagues (2016) evaluated the influences of what they called "ecocultural contextual factors" on different actors' definitions of, and responses to, behavior problems in children (Burkey et al., 2016). These authors used in-depth interviews with parents, teachers, and community leaders who had knowledge of child development, as well as focus group interviews with both children and teachers, and direct observations conducted in homes, schools, and community spaces. Such research is especially relevant to understanding perceptions of children with IEPs or those who are in the process of being determined eligible for special education services, as there are known difficulties and barriers to meaningful collaboration between parents and teachers during this process (e.g. Bray & Russell, 2016; Mueller, 2015; Stoner et al., 2005). Studies using mixed methods designs could also be particularly informative with regard to kindergarten children rated by their teachers as having moderate to severe problem behavior, to ascertain whether parents corroborate teachers' perceptions. Such research is much needed in order to add insight to the rising literature on teacher bias and disproportionate discipline practices in early childhood education.

Limitations

The findings of this study should be interpreted in light of some limitations. First, the robustness of the measures of problem behavior could not be fully ascertained through a confirmatory item-level analysis, given the unavailability of item-level data. Second, the greater missingness of data for children whose teachers reported moderate to

severe problem behavior and for Black students/families may not have been entirely addressed through the use of sample weights. Although the weights used were those recommended by IES, alternative weights could have yielded somewhat different results. However, given the clear pattern of results, with ANOVA *p*-values either clearly significant or non-significant, it is unlikely that the use of different weights would have changed the substantive interpretation of the results.

Conclusion

This study extends past literature in several ways. First, it provides a nationally representative portrait of parent-teacher agreement for kindergarten children exhibiting behavior problems. Prior studies of parent-teacher agreement have been conducted in other countries or have used smaller, locally representative samples of children. Second, this study focused on children with IEPs and offers an analysis particularly relevant to special educators and policymakers. The use of multiple informants in special education and psychological assessment is considered critical in order to obtain a comprehensive perspective of the child's behavior and will likely continue to be required in guiding policies and regulations.

In sum, existing research and best practice support the recommendation that parents and teachers jointly identify child problem behavior that warrants intervention in order to meet school expectations and readiness goals. When parents' ratings of problem behaviors accord with teachers' ratings, especially in the critical period of kindergarten, such agreement may be a catalyst for increased support and more positive outcomes for children. Children may benefit tremendously if schools take steps to ensure the meaningful participation of parents in evaluation and decision making regarding their

child's problem behavior, particularly for children belonging to marginalized subgroups that may be subject to harsher ratings and discipline.

References

- Achenbach, T. M. (1992). *Manual for the Child Behavior Checklist/2-3 and 1992 Profile*. Burlington, VT: University of Vermont Department of Psychiatry.
- Achenbach, T. M., McConaughy, S. H., & Howell, C. T. (1987). Child/adolescent behavioral and emotional problems: Implications of cross-informant correlations for situational specificity. *Psychological Bulletin*, *41*, 213-232. doi:10.1037/0033-2909.101.2.213
- Achenbach, T. M., & Rescorla, L. (2000). *CTRF/1½-5 Profile*. Burlington, VT: University of Vermont Department of Psychiatry. Retrieved from <http://www.aseba.org/forms.html>
- Aloe, A. M., Shisler, S. M., Norris, B. D., Nickerson, A. B., & Rinker, T. W. (2014). A multivariate meta-analysis of student misbehavior and teacher burnout. *Educational Research*, *12*, 30-44. doi:10.1016/j.edurev.2014.05.003
- Anglim, J. (2009, March 22). Calculating composite scores of ability and other tests in SPSS [Web log post]. Retrieved from <http://jeromyanglim.blogspot.com/2009/03/calculating-composite-scores-of-ability.html>
- Bettencourt, A., Gross, D., & Ho, G. (2016). *The costly consequences of not being socially and behaviorally ready by kindergarten: Associations with retention, receipt of academic support services and suspensions/expulsions* (Report of the Baltimore Education Research Consortium). Retrieved from <https://files.eric.ed.gov/fulltext/ED567802.pdf>
- Berg-Nielsen, T. S., Solheim, E., Belsky, J., & Wichstrom, L. (2012). Preschoolers' psychosocial problems: In the eyes of the beholder? Adding teacher characteristics as determinants of discrepant parent-teacher reports. *Child Psychiatry and Human Development*, *43*, 393-413. doi:10.1007/s10578-011-0271-0
- Bray, L. E., & Russell, J. L. (2016). Going off script: Structure and agency in Individualized Education Program meetings. *American Journal of Education*, *122*, 367-398. doi:10.1086/685845
- Briggs-Gowan, M. J., & Carter, A. S. (2008). Social-emotional screening status in early childhood predicts elementary school outcomes. *Pediatrics*, *121*, 957-962. doi:10.1542/peds.2007-1948
- Buck, K. H., & Ambrosino, R. J. (2004). Children with severe behavior problems: A survey of Texas child care centers' responses. *Early Childhood Education Journal*, *31*, 241-246. doi:10.1023/B:ECEJ.0000024115.51009.e6

- Burkey, M. D., Ghimire, L., Adhikari, R. P., Wissow, L. S., Jordans, M. J. D., & Kohrt, B. A. (2016). The ecocultural context and child behavior problems: A qualitative analysis in rural Nepal. *Social Science Medicine*, *159*, 73-82. doi:10.1016/j.socscimed.2016.04.020
- Cai, X., Kaiser, A., & Hancock, T. (2004). Parent and teacher agreement on Child Behavior Checklist items in a sample of preschoolers from low-income and predominantly African American families. *Journal of Clinical Child and Adolescent Psychology*, *33*, 303–312. doi:10.1207/s15374424jccp3302
- Carney, R., Stratford, B., Moore, K. A., Rojas, A., & Daneri, P. (2015). What works for reducing problem behaviors in early childhood: Lessons from experimental evaluations (Publication #2015-32). Retrieved from <http://www.childtrends.org/wp-content/uploads/2015/08/2015-32WhatWorksProblemBehaviors.pdf>
- Cornell, D. G., Allen, K., & Fan, X. (2012). A randomized controlled study of the Virginia Student Threat Assessment guidelines in kindergarten through grade 12. *School Psychology Review*, *41*, 100-115. Retrieved from <https://eric.ed.gov/?id=EJ977429>
- Crane, J., Mincic, M. S., & Winsler, A. (2011). Parent-teacher agreement and reliability on the Devereux Early Childhood Assessment (DECA) in English and Spanish for ethnically diverse children living in poverty. *Early Education and Development*, *22*, 520-547. doi:10.1080/10409289.2011.5657722
- Crane, J., Winsler, A., & Sands, B. (2013). Patterns of referral recommendations for ethnically diverse children in subsidized child care. *Exceptional Children*, *80*, 45-64. doi:10.1177/001440291308000102
- Cyphert, A. (2014). Addressing radical disparities in preschool suspension and expulsion rates. *Tennessee Law Review*, *82*, 893-936. Retrieved from <https://tennesseelawreview.org/volume-archives/volume-82/summer-2015/addressing-racial-disparities-in-preschool-suspension-and-expulsion-rates/>
- Datar, A., & Sturm, R. (2004). Childhood overweight and parent- and teacher-reported behavior problems. *Archive of Pediatric Adolescent Medicine*, *158*, 804-810.
- de Greef, M., Pijnenburg, H., van Hattum, M., McLeod, B., & Scholte, R. (2017). Parent-professional alliance and outcomes of child, parent, and family treatment: A systematic review. *Journal of Child and Family Studies*, *26*, 961-976. doi:10.1007/s10826-016-0620-5

- De Los Reyes, A. (2011). Introduction to the special section: More than measurement error: Discovering meaning behind informant discrepancies in clinical assessments of children and adolescents. *Journal of Child and Adolescent Psychology, 40*, 1-9. doi:10.1080/15374416.2011.533405
- De Los Reyes, A., Augenstein, T. M., Wang, M., Thomas, S. A., Drabick, D. A. G., Burgers, D. E., & Rabinowitz, J. (2015). The validity of the multi-informant approach to assessing child and adolescent mental health. *Psychological Bulletin, 141*, 858-900. doi:10.1037/a0038498
- De Los Reyes, A., Henry, D. B., Tolan, P. H., & Wakschlag, L. S. (2009). Linking informant discrepancies to observed variations in young children's disruptive behavior. *Journal of Abnormal Child Psychology, 37*, 637-652. doi:10.1007/s10802-009-9307-3
- De Los Reyes, A., & Kazdin, A. E. (2005). Informant discrepancies in the assessment of childhood psychopathology: A critical review, theoretical framework, and recommendations for further study. *Psychological Bulletin, 131*, 483-509. doi:10.1037/0033-2909.131.4.483
- De Los Reyes, A., Thomas, S. A., Goodman, K. L., & Kundey, S. M. (2013). Principles underlying the use of multiple informants' reports. *Annual Review of Clinical Psychology, 9*, 123. doi:10.1146/annurev-clinpsy-050212-185617
- Dewey, J., Sindelar, P. T., Bettini, E., Boe, E. E., Rosenberg, M. S., & Leko, C. (2017). Explaining the decline in special education teacher employment from 2005 to 2012. *Exceptional Children, 83*, 315-329. doi:10.1177/0014402916684620
- Diamond, K. E., & Squires, J. (1993). The role of parental report in the screening and assessment of young children. *Journal of Early Intervention, 17*, 107-115. doi:10.1177/105381519301700203
- Dinnebeil, L. A., Sawyer, B. E., Logan, J., Dynia, J. M., Cancio, E., & Justice, L. M. (2013). Influences on the congruence between parents' and teachers' ratings of young children's social skills and problem behaviors. *Early Childhood Research Quarterly, 28*, 144-152. doi:10.1016/j.ecresq.2012.03.001
- Dinnebeil, L. A., & Rule, S. (1994). Variables that influence collaboration between parents and service coordinators. *Journal of Early Intervention, 18*, 349-361. doi:10.1177/105381519401800405
- DiPrete, T. A., & Jennings, J. L. (2012). Social and behavioral skills and the gender gap in early educational achievement. *Social Science Research, 41*, 1-15. doi:10.1016/j.ssresearch.2011.09.001

- Duncan, G., Dowsett, C., Claessens, A., Magnuson, K., Huston, A., Klebanov, P., ... Japel, C. (2007). School readiness and later achievement. *Developmental Psychology, 43*, 1428-1446. doi:10.1037/0012-1649.43.6.1428
- Feeney-Kettler, K. A., Kratochwill, T. R., & Kettler, R. J. (2011). Identification of preschool children at risk for emotional and behavioral disorders: Development and validation of a universal screening system. *Journal of School Psychology, 49*, 197-216. doi:10.1016/j.jsp.2011.02.001
- Ferdinand, R. F., Van der Ende, J., & Verhulst, F. C. (2007). Parent-teacher disagreement regarding psychopathology in children: A risk factor for adverse outcomes? *Acta Psychiatrica, 115*, 48-55. doi:10.1111/j.1600-0447.2006.00843.x
- Gagnon, C., Vitaro, F., & Tremblay, R. E. (1992). Parent-teacher agreement on kindergartners' behavior problems: A research note. *Journal of Child Psychology and Psychiatry, 33*, 1255-1262. doi:0021-9630/92
- Garcia, E. (2015). Inequalities at the starting gate: Cognitive and noncognitive skills gaps between 2010-11 kindergarten classmates. Report of the Economic Policy Institute. Retrieved from <https://files.eric.ed.gov/fulltext/ED560407.pdf>
- Gerber, M. M. (1988). Tolerance and technology of instruction: Implications for special education reform. *Exceptional Children, 54*, 309-314. doi:10.1177/001440298805400404
- Gilliam, W. (2016). Early childhood expulsions and suspensions undermine our nation's most promising agent of opportunity and social justice [Issue Brief], Robert Wood Johnson Foundation. Retrieved from <http://bma.issuelab.org/resources/25852/25852.pdf>
- Gilliam, W. (2017, April). *Bias in the Classroom: Then, Now, Tomorrow*. Type of session presented at the annual meeting of the American Education Research Association, San Antonio, TX.
- Gilliam, W., & Shahar, G. (2006). Preschool and child care expulsion and suspension. *Infants & Young Children, 19*, 228-245. doi:10.1097/00001163-200607000-00007
- Gilliam, W. S., Maupin, A. N., & Reyes, C. R. (2016). Early childhood mental health consultation: Results from a statewide random-controlled evaluation. *Journal of the American Academy of Child and Adolescent Psychiatry, 55*, 754-761. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/27566116>

- Gilliam, W. S., Maupin, A. N., Reyes, C. R., Accavitti, M., & Shic, F. (September 2016). Do early educators' implicit biases regarding sex and race relate to behavior expectations and recommendations of preschool expulsion and suspensions? (Research Study Brief of the Yale Child Study Center). Retrieved from http://ziglercenter.yale.edu/publications/Preschool%20Implicit%20Bias%20Policy%20Brief_final_9_26_276766_5379_v1.pdf
- Gresham, F. M., & Elliott, S. N. (1990). *Social Skills Rating System*. Circle Pines, MA: American Guidance Services.
- Gresham, F. M., Elliott, S. N., Cook, C. R., Vance, M. J., & Kettler, R. (2010). Cross-informant agreement for ratings for social skill and problem behavior ratings: An investigation of the Social Skills Improvement System-Rating Scales. *Psychological Assessment, 22*(1), 157-166. doi:10.1037/a0018124
- Gresham, F. M., Lane, K. L., MacMillan, D. L., & Bocian, K. M. (1999). Social and academic profiles of externalizing and internalizing groups: Risk factors for emotional and behavioral disorders. *Behavioral Disorders, 24*, 231-245. Retrieved from <http://www.jstor.org/stable/23888776>
- Gross, P., Fogg, L., Garvey, C., & Julion, W. (2004). Behavior problems in young children: An analysis of cross-informant agreements and disagreements. *Research in Nursing and Health, 27*, 413-426. doi:10.1002/nut.20040
- Harry, E., & Klingner, J. (2007). *Why are so many minority students in special education?* New York: Teachers College Press.
- Hartley, A., Zakriski, A., & Wright, J. (2011). Probing the depths of informant discrepancies: Contextual influences on divergence and convergence. *Journal of Clinical Child and Adolescent Psychology, 40*, 54-66. doi:10.1080/15374416.2011.533404
- Harvey, E. A., Fischer, C., Weleneth, J. L., Hurwitz, S. D., & Sayer, A. G. (2013). Predictors of discrepancies between informants' ratings of preschool-aged children's behavior: An examination of ethnicity, child characteristics, and family functioning. *Early Childhood Research Quarterly, 28*, 668-682. doi:10.1016/j.ecresq.2013.05.002
- Hastings, R. P., & Bham, M. S. (2003). The relationship between student behavior patterns and teacher burnout. *School Psychology International, 24*(1), 115-127.
- Hauser-Cram, P., Sirin, S. R., & Stipek, D. (2003). When teachers' and parents' values differ: Teachers' ratings of academic competence in children from low-income families. *Journal of Educational Psychology, 95*, 813-830. doi:0022-0663/03

- Hinshaw, S. P., Han, S. S., Erhardt, D., & Huber, A. (1992). Internalizing and externalizing behavior problems in preschool children: Correspondence among parent and teacher ratings and behavior observations. *Journal of Clinical Child Psychology, 21*, 143-150. doi:10.1207/s153744424jccp2102_6
- Hundert, J., Morrison, I., Mahoney, W., Mundy, F., & Vernon, M. (1997). Parent and teacher assessments of the developmental status of children with severe, mild/moderate, or no developmental disabilities. *Topics in Early Childhood Special Education, 17*, 419-434. doi:10.1177/027112149701700404
- Individuals with Disabilities Education Act, 20 U.S.C. §§ 1400 (2004).
- Institute of Educational Sciences, National Center for Education. (2015). Working with the ECLS-K Datasets Weights and Other Issues. Retrieved from IES.
- Keenan, K., & Wakschlag, L. S. (2002). Can a valid diagnosis of disruptive behavior be made in preschool children? *American Journal of Psychiatry, 159*, 351-358. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/11869995>
- Kerr, D. C. R., Lunkenheimer, E. S., & Olson, S. L. (2007). Assessment of child problem behaviors by multiple informants: A longitudinal study from preschool to school entry. *Journal of Child Psychology and Psychiatry, 48*, 967-975. doi:10.1111/j.1469-7610.2007.01776.x
- Kolko, D. J., & Kazdin, A. E. (1993). Emotional/behavioral problems in clinic and nonclinic children: Correspondence among child, parent and teacher reports. *Journal of Child Psychology and Psychiatry, 34*, 991-1006. doi:0021-9630/93
- Korsch, F., & Petermann, F. (2014). Agreement between parent and teachers on preschool children's behavior in a clinical sample with externalizing behavioral problems. *Child Psychiatry Human Development, 45*, 617-627. doi:10.1007/s10578-013-0430-6
- Kuhn, M., Marvin, C. A., & Knoche, L. L. (2016). In it for the long haul: Parent-teacher partnerships for addressing preschool children's challenging behaviors. *Topics in Early Childhood Special Education, 37*, 1-13. doi:10.1177/0271121416659053
- Lang, S. N., Tolbert, A. R., Schoppe-Sullivan, S. J., & Bonomi, A. E. (2016). A cocaring framework for infants and toddlers: Applying a model of coparenting to parent-teacher relationships. *Early Childhood Research Quarterly, 34*, 40-52. doi:10.1016/j.ecresq.2015.08.004
- Lamont, J. H., & Council on School Health. (2013). Policy Statement: Out-of-school suspension and expulsion. *Pediatrics*. Online, e1000-e1007. doi:10.1542/peds.2012-3932

- Lavigne, J. V., Dahl, K. P., Gouze, K. R., LeBailly, S. A., & Hopkins, J. (2015). Multi-domain predictors of Oppositional Defiant Disorder symptoms in preschool children: Cross-informant differences. *Child Psychiatry and Human Development, 46*, 308-319. doi:10.1007/s10578-014-0472-4
- Lloyd, J. W., Kauffman, J. M., Landrum, T. J., Roe, D. L. (1991). Why do teachers refer pupils for special education? An analysis of referral records. *Exceptionality, 2*, 115-126. doi:10.1080/09362839109524774
- Losen, D., & Gillespie, J. (2012). Opportunities suspended: The disparate impact of disciplinary exclusion from school. Civil Rights Project, UCLA. Retrieved from: <http://civilrightsproject.ucla.edu/resources/projects/center-for-civil-rights-remedies/school-to-prison-folder/federal-reports/upcoming-ccrr-research/losen-gillespie-opportunity-suspended-2012.pdf>
- Losen, D. J., Ee, J., Hodson, C., & Martinez, T. E. (2015). Disturbing inequities: Exploring the relationship between racial disparities in special education identification and discipline. In Losen, D. J. *Closing the school discipline gap* (pp. 89-106). New York: Teachers College Press.
- Merrell, K. W. (1994). Preschool and Kindergarten Behavior Scales. Retrieved from <https://files.eric.ed.gov/fulltext/ED378210.pdf>
- Montes, G., Lotyczewski, B. S., Halterman, J. S., & Hightower, A. D. (2012). School readiness among children with behavior problems at entrance into kindergarten: Results from a U.S. national study. *European Journal of Pediatrics, 171*, 541-548. doi:10.1007/s_00431-001-1605-4
- Morgan, P., Farkas, G., Tufis, P., & Sperling, R. (2008). Are reading and behavior problems risk factors for each other? *Journal of Learning Disabilities, 41*, 417-436. doi:10.1177/0022219408321123
- Mueller, T. G. (2015). Litigation and special education: The past, present, and future direction for resolving conflicts between parents and school districts. *Journal of Disability Policy Studies, 26*, 135-143. doi:10.1177/1044207314533382
- Murray, D. W., Kollins, S. H., Hardy, K. K., Abikoff, H. B., Swanson, J. M., Cunningham, C., ...Chuang, S. Z. (2007). Parent versus teacher ratings of Attention-Deficit/Hyperactivity Disorder symptoms in the Preschoolers with Attention-Deficit/Hyperactivity Disorder Treatment Study (PATs). *Journal of Child and Adolescent Psychopharmacology, 17*, 605-619. doi:10.1089/cap.2007.0060
- O'Connor, E. E., Dearing, E., & Collins, B. A. (2011). Teacher-child relationship and behavior problem trajectories in elementary school. *American Educational Research Journal, 48*(1), 120-162. doi:10.3102/0002831210365008

- Passero, A. C., & Jones, R. J. (2015). Bottom-line choices: Effects of market ideology in Florida's voluntary preschool policies. *Journal of Educational Controversy*, 9(1), 1-16. Retrieved from http://cedar.wvu.edu/jec/vol9/iss1/9/?utm_source=cedar.wvu.edu%2Fjec%2Fvol9%2Fiss1%2F9&utm_medium=PDF&utm_campaign=PDFCoverPages
- Phillips, K., & Downer, J. (2017). Classroom context and years of teaching experience as predictors of misalignment on ratings of preschoolers' classroom engagement. *Early Education and Development*, 28, 343-367. doi:10.1080/10409289.2016.1218730
- Phillips, B. M., & Lonigan, C. J. (2010). Child and informant influences on behavioral ratings of preschool children. *Psychology in the Schools*, 47, 374-390. doi:10.1002/pits
- Qi, C. H., & Kaiser, A. P. (2003). Behavior problems of preschool children from low income families: Review of the literature. *Topics in early childhood special education*, 23, 188-216. doi:10.1177/02711214030230040201
- Skiba, R. J., Chung, C., Trachok, M., Baker, T. L., Sheya, A., & Hughes, R. L. (2014). Parsing disciplinary disproportionality: Contributions of infraction, student, and school characteristics to out-of-school suspension and expulsion. *American Education Research Journal*, 51, 640-670. doi:10.3102/0002831214541670
- Skiba, R. J., Poloni-Staudinger, L., Simmons, A. B., Feggins-Azziz, L. R., & Chung, C. (2005). Unproven links: Can poverty explain ethnic disproportionality in special education? *Journal of Special Education*, 39, 130-144. doi:10.1177/00224669050390030101
- Smidts, D. P., & Oosterlaan, J. (2007). How common are symptoms of ADHD in typically developing preschoolers? A study on the prevalence rates and prenatal/demographic risk factors. *Cortex*, 43, 710-717. doi:10.1016/S0010-945(08)70500-8
- Snell, M. E., Berlin, R. A., Voorhees, M. D., Stanton-Chapman, T. L., & Hadden, S. (2011). A survey of preschool staff: Concerning problem behavior and its prevention in Head Start classrooms. *Journal of Positive Behavior Interventions*, 14(2), 98-107. doi:10.1177/1098300711416818
- Speltz, M. L., McClellan, J., DeKlyen, M., & Jones, K. (1999). Preschool boys with Oppositional Defiant Disorder: Clinical presentation of diagnostic change. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38, 838-835. ISSN:0890-8567

- Stratis, E. A., & Lecavalier, L. (2015). Informant agreement for youth with autism spectrum disorder or Intellectual Disability: A meta-analysis. *Journal of Autism and Developmental Disorders*, *45*, 1026-1041. doi:10.1007/s10803-014-2258-8
- Stoner, J. B., Bock, S. J., Thompson, J. R., Angell, M. E., Heyl, B. S., & Crowley, E. P. (2005). Welcome to our world: Parent perceptions of interactions between parents of young children with ASD and educational professionals. *Focus on Autism and Other Developmental Disabilities*, *20*, 39-51. doi:10.1177/10883576050200010401
- Thijs, J. & Eilbracht, L. (2012). Perceptions of parent-teacher alliance and relationship conflict: Examining the role of ethnic differences and “disruptive” behavior. *Psychology in the Schools*, *49*, 794-808. doi:10.1002/pits
- Tourangeau, K., Nord, C., Lê, T., Sorongon, A.G., Hagedorn, M.C., Daly, P., & Najarian, M. (2015). *Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011), User’s Manual for the ECLS-K:2011 Kindergarten Data File and Electronic Codebook* (NCES 2015-074). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- U.S. Department of Education, Institute of Education Sciences, National Center for Educational Statistics. *Early Childhood Longitudinal Study, Kindergarten Cohort of 2010-11*. Retrieved from the Institute of Education Sciences.
- U.S. Department of Education, Office of Civil Rights. (2014, March). Data snapshot: Early childhood education. [Issue Brief No. 2]. Retrieved from <https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf>
- U.S. Department of Education, Department of Health and Human Services. (2016). *Policy statement on expulsion and suspension policies in early childhood settings*. Retrieved from <https://www2.ed.gov/policy/gen/guid/school-discipline/policy-statement-ece-expulsions-suspensions.pdf>
- Verhulst, F. C., Koot, H. M., & Van der Ende, J. (1994). Differential predictive value of parents’ and teachers’ reports of children’s problem behaviors: A longitudinal study. *Journal of Abnormal Child Psychology*, *22*(5), 531-546. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/7822627>
- Wakschlag, L. S., Tolan, P. H., & Leventhal, B. L. (2010). ‘Ain’t misbehavin’: Toward a developmentally-specified nosology for preschool disruptive behavior. *Journal of Child Psychology and Psychiatry*, *51*, 3-22. doi:10.1111/j.1469-7610.2009.02184.x
- Weiss, J. A., Cappadocia, M. C., MacMullin, J. A., Vecili, M., & Lunsy, Y. (2012). The impact of child problem behavior of children with ASD on parent mental

health: The mediating role of acceptance and empowerment. *Autism, 16*, 261-274.
doi:10.1177/1362361311422708

Winsler, A., & Wallace, G. L. (2002). Behavior problems and social skills in preschool children: Parent-teacher agreement and relations with classroom observations. *Early Education and Development, 131*, 41-58.
doi:10.1207/s15566935eed1301_3

Wright, B., & Ford, D. (2016). "This little light of mine": Creating early childhood education classroom experiences for African American boys. *Journal of African American Males in Education, 7*, 5-19. Retrieved from
<http://journalofafricanamericanmales.com/wp-content/uploads/2016/05/final-2-Wright-Ford-2016-This-Little-Light-of-Mine-1.pdf>

Wright, A., Gottfried, M. A., & Le, V. (2017). A kindergarten teacher like me: The role of student-teacher race in social-emotional development. *American Education Research Journal, 54*, 78S-101S. doi:10.3102/00028312166357

Appendix A: Missing Data Analysis

Subgroup	Complete Data (<i>n</i> = 3,310)	Missing Data (<i>n</i> = 1,300)	Chi-square
	%	%	
Special Education Status			.797, <i>p</i> = .671
Students without an IEP	86.2	85.3	
Students with an IEP	13.8	14.7	
Gender			.193, <i>p</i> = .660
Male	65.4	64.3	
Female	34.6	35.0	
Race			92.711, <i>p</i> < .001
White	50.4	36.7	
Hispanic	21.9	26.4	
Black	15.5	24.7	
Asian	5.5	5.7	
Other	6.8	5.5	
School Type			5.151, <i>p</i> = .161
Public	86.7	87.4	
Private	13.3	12.6	

Note. Other (Race) includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Two or More Race categories; Percent of category may not sum to 100.0% for each subgroup due to rounding.

Measure	Levene's Test for Equality of Variance		<i>t</i> -test for Equality of Means				95% Confidence Interval of the Difference	
	F	Sig	<i>t</i>	<i>df</i>	Mean Difference	Std. Error Difference	Lower	Upper
<i>tchprn</i>	19.71	.000	3.12	4,610	.054	.017	.02	.09
<i>Approaches to Learning (teacher)</i>	.05	.818	-4.40	4,610	-.088	.020	-.13	-.05
<i>Approaches to Learning (parent)</i>	3.66	.056	-2.22	3,330	-.265	.119	-.50	-.03

Note. Sum of *n* and % may not equal sample size due to rounding required by NCES.

Appendix B: Comparison of the Study Sample to the ECLS-K:2011 Sample

Subgroup	Study Sample (<i>n</i> = 3,310)	ECLS-K:2011 Sample (<i>n</i> = 18,170)
	%	%
Special Education Status		
Students without an IEP	86.2	91.0
Students with an IEP	13.8	9.0
Gender		
Male	65.4	51.1
Female	34.6	48.7
Race		
White	50.4	46.7
Hispanic	21.9	25.2
Black	15.5	13.2
Asian	5.5	8.5
Other	6.8	6.0
Teacher-child race match		
Match	58.4	52.4
Mismatch	41.6	47.6

Note. Other (Race) includes Native Hawaiian/Pacific Islander, American Indian/Alaskan Native, and Two or More Race categories; Percent of category may not combine to 100.0% for each subgroup due to rounding