How Parental Support During Homework Contributes to Helpless Behaviors Among Struggling Readers

Melissa Orkin, Sidney May & Maryanne Wolf

To cite this article: Melissa Orkin, Sidney May & Maryanne Wolf (2017) How Parental Support During Homework Contributes to Helpless Behaviors Among Struggling Readers, Reading Psychology, 38:5, 506-541, DOI: 10.1080/02702711.2017.1299822

To link to this article: https://doi.org/10.1080/02702711.2017.1299822
HOW PARENTAL SUPPORT DURING HOMEWORK CONTRIBUTES TO HELPLESS BEHAVIORS AMONG STRUGGLING READERS

MELISSA ORKIN, SIDNEY MAY, and MARYANNE WOLF
Center for Reading, Tufts University, Medford, Massachusetts

This research investigated the influence of parental practices on helpless behaviors of struggling readers during homework tasks. Parents (N = 36) of elementary students reported on their children’s helpless behaviors, such as task avoidance and negative affect, during homework assignments, and on the nature and frequency of their support. Distinctions were made between parental support considered to be strategic, compensatory, or intrusive. Additional variables that influence achievement behaviors were assessed, including children’s language skills, academic abilities, and behavior regulation. Parent support considered intrusive, such as unsolicited interruptions and corrections, along with children’s behavior regulation abilities, accounted for the greatest variation in struggling readers’ helpless behaviors.

There is a bevy of anecdotal and quantitative evidence that depicts homework as being a grueling experience for children and parents alike (Bryan, Nelson, & Mathur, 1995; Dudley-Marling, 2003; Lareau, 2000; Margolis, 2005; McDermott, Goldman, & Varenne, 1984; Pomerantz, Wang, & Ng, 2005; Varenne & McDermott, 1999; Walker, Hoover-Dempsey, Whetsel, & Green, 2004). In addition to its cognitive demands, homework can be emotionally charged (Xu, 2011), eliciting both strong negative emotional and behavioral responses from children, including task avoidance, and negative attitudes towards learning. These behaviors can lead to increased friction between parents and children (Cooper, 2001), and result in higher levels of parental stress (Katz, Buzukashvili, & Feingold, 2012; Nicholls, McKenzie, & Shufro, 1994; Warton, 2001). Tackling nightly homework assignments is particularly challenging for the
families of struggling readers, as skill deficiencies often exacerbate children’s negative affect and task avoidance (Aunola, Nurmi, Niemi, Lerkkanen, & Rasku-Puttonen, 2002; Chapman & Tunmer, 2003; Hagborg, 1999; Humphrey, 2002; Lepola, Salonen, & Vauras, 2000; Lepola, Poskipart, Laakkonen, & Niemi, 2005; Margolis, McCabe, & Alber, 2004; Onatsu-Arvilommi, & Nurmi, 2000; Polychroni, Koukoura, & Anagnostou, 2006; Sideridis, Morgan, Botsas, Padeliadu, & Fuchs, 2006; Stone & May, 2002; Tabassam & Grainger, 2002).

When parents assist their struggling readers with homework, they typically strive to develop their children’s skills, and when necessary, compensate for a lack of ability by reading or writing (scribing) for their children (Bryan, Burstein, & Bryan, 2001; Bryan & Nelson, 1994; Epstein, Simon, & Salinas, 1997; Salend & Gajria, 1995). Yet, despite their worthy intentions, parents may lack knowledge about the best practices for fostering independent engagement, and unknowingly employ controlling or coercive practices that further contribute to their children’s frustration with and avoidance of challenging academics tasks (Grolnick, 2009; Moroni, Dumont, Trautwein, Nigghi, & Baeriswyl, 2015; Pomerantz, Moorman, & Litwack, 2007).

The co-occurrence of frustration and avoidance is connected to the phenomenon of helplessness (Diener & Dweck, 1980; Dweck, 1975; Dweck & Reppucci, 1973; Dweck & Leggett, 1988; Moorman & Pomerantz, 2008; Pomerantz & Eaton, 2001; Valàs, 2001), in which children seek to avoid challenging tasks because they may feel incompetent at managing academic demands, and might attribute their failure to a lack of ability (Dweck & Leggett, 1988; Jose & Bellamy, 2012; Marsh, 1984; Marsh, Cairns, Ralich, Barnes, & Debus, 1984; Moorman & Pomerantz, 2008; Moorman & Pomerantz, 2010; Smiley & Dweck, 1994; Valàs, 2001). Children who struggle with learning are particularly vulnerable to helpless behavior and, in the face of challenging tasks, often demonstrate three behavioral components of helplessness, including reduced effort, negative affect, and lack of positivity (Butkowski & Willows, 1980; Licht et al., 1985; Sideridis, 2003; Smiley, Coulson, Greene, & Bono, 2010; Valás, 2001; Wilgosh, 1984). This constellation of maladaptive behaviors is especially troubling when one considers the detrimental impact of task avoidance on the development of critical literacy skills (Onatsu-
Arvilommi & Nurmi, 2000; Stanovich, 1986), and subsequent achievement (Burhans & Dweck, 1995; Duckworth & Seligman, 2005).

Therefore, a greater understanding of the cognitive, emotional, and environmental variables that contribute to helpless behaviors among struggling readers is extremely important in aiding both parent and child. The current investigation explored aspects of children’s cognitive and academic skills, including: written and oral language abilities, executive functions (behavior regulation and metacognition), as well as the practices parents employ to support their children during homework tasks. The results of the current investigation will be used to better understand the differential effects of these influences.

Achievement Behaviors and Helplessness

Achievement behaviors refer to children’s behavioral responses in situations where their performance is being evaluated (Bandura, 1977; Pintrich, 2003; Schunk, 1984; Weiner, 1979). Achievement behaviors are thought to be the result of a combination of internal factors, such as ability, beliefs, and self-regulation, and external factors, such as parenting practices (Bandura, 1997; Bergold & Steinmayr, 2016; Deci & Ryan, 2000; Dinkelmann, & Buff, 2016; Pintrich, 2003; Schunk, 1989). Some students react to challenges with enthusiasm and increased effort, whereas others become anxious, passive, or task avoidant (e.g., Dweck & Leggett, 1988; Burhans & Dweck, 1995). Certain achievement behaviors are associated with positive outcomes. For example, in recent years there has been renewed interest in the importance of persistence, engagement, and willingness to attempt challenges—a collection of behaviors sometimes referred to as grit (Duckworth, 2016), or self-regulated learning (Boekaerts & Corno, 2005; Schunk & Zimmerman, 2001; 2012). These traits are associated with long-term positive outcomes like greater retention of knowledge (Duckworth & Gross, 2014; Zimmerman, 1998). Conversely, helpless behaviors like frustration and avoidance are considered maladaptive because they do not promote students’ performance and skill development (Bandura, 1993; Diener & Dweck, 1980; Pekrun, Goetz, Titz, & Perry, 2002; Thomas, 1979; Valás, 2001).
Learned helplessness refers to a constellation of affect and behaviors (e.g., negative affect, reduced persistence, and passivity) associated with a perceived lack of control over one’s experiences (Seligman & Maier, 1967). Initially, the phenomenon was discovered in experimental trials with animals, but subsequent research has confirmed the existence of learned helplessness among children with respect to achievement outcomes (e.g., Butkowski & Willows, 1980; Dweck, 1975; Dweck & Reppucci, 1973; Licht et al., 1985; Marsh, 1984; Marsh et al., 1984; Palmer et al., 1982; Sideridis, 2003; Valás, 2001; Wilgosh, 1984). In educational settings, the predictive relationship between helpless behaviors and achievement appears to be mediated by children’s perceived efficacy. Specifically, low feelings of efficacy among children are typically associated with reduced task initiation, persistence, and performance (Burhans & Dweck, 1995; Schunk, 1989; Smiley et al., 2010), and increased negative affect and frustration (Fincham, Hokoda, & Sanders, 1989; Linnenbrink & Pintrich, 2003).

Helpless behavior, in particular, often references the “learned” component, implying that environments send cues to individuals about the “appropriate” behavioral response in the face of a challenge (Seligman & Maier, 1967; Dweck, 1975). Learning environments, like classroom and home environments, convey achievement messages through various instructional components, such as the nature of assignments, teacher feedback, and metrics of evaluation. Learning environments that convey rigid or conflicting messages about the nature of success are associated with greater levels of helplessness among students, compared to environments that convey consistently flexible or fluid messages about achievement (Hokoda & Fincham, 1995; Moorman & Pomerantz, 2010). For example, when children receive cues that academic success is fluid and achieved through effort and strategy-use, and that the process of learning is valued as equal to the products of knowledge, frustration, and avoidance behaviors are infrequent. In contrast, when success is evaluated through rigid standards and perceived as related to inherent ability (i.e., intelligence or trait), children display a high number of helpless behaviors (Cimpian, Arce, Markman, & Dweck, 2007; Diener & Dweck, 1980; Dweck & Leggett, 1988; Fincham & Cain, 1986; Hokoda & Fincham, 1995; Kamins & Dweck, 1999; Smiley et al., 2016).
Helplessness in Struggling Readers

Children who struggle to meet academic benchmarks, including those with learning disabilities, have consistently been found to differ in their motivational and behavioral profiles from their typical peers (Chapman & Tunmer, 1997, 2003; Edmunds & Bauserman, 2006; Polychroni, Koukoura, & Anagnostou, 2006; Sideridis et al., 2006). More specifically, struggling readers tend to report lower levels of efficacy compared with their typical peers (Chapman & Tunmer, 2003). Further, struggling readers report attributional beliefs that leave them susceptible to a constellation of behaviors often described as helpless, as well as prone to resignation in the face of academic challenges (Butkowski & Willows, 1980; Guthrie & Davis, 2003; Walker & Rivers, 2003).

Struggling readers begin to demonstrate patterns of task avoidance early in their educational careers. Pre-readers who exhibit decreased abilities in the reliable predictors of reading (e.g., phonemic awareness, letter knowledge, and rapid naming) also exhibit fewer task-oriented coping strategies, such as problem-solving or persistence, and a greater number of ego-defense or avoidance strategies compared to children with better precursor skills (Lepola et al., 2005; Morgan, Fuchs, Compton, Cordray, & Fuchs, 2008). As children mature, the desire to avoid reading-related tasks can develop into maladaptive behavioral patterns that negatively impact skill development and subsequent motivation (Guthrie & Davis, 2003; Morgan, Farkas, Tufis, & Sperling, 2008; Stanovich, 1986). This is particularly true as reading becomes a primary mean for acquiring knowledge (Lepola, Salonen, & Vauras, 2000). Previous investigations into supporting struggling readers during homework have found that assignments are often aligned with grade-level benchmarks and can therefore exceed a child’s skill level (Margolis, 2005), resulting in a greater likelihood of frustration and task avoidance during assignment completion (Bryan et al., 2001; Bryan & Nelson, 1994; Epstein et al., 1997; Salend & Gajria, 1995).

Role of Behavioral Regulation

The frequency and magnitude of helpless behaviors are influenced by a variety of intra-individual factors including cognitive
challenges, as discussed earlier, and regulatory processes. Executive function is one framework for studying self-regulation in childhood, and provides insights into the inter-related processes that exert control over one’s attention, cognition, and behavioral tendencies (Blair, Zelazo, & Greenberg, 2005) as children pursue goal-directed activities over time and across contexts (Karoly, 1993). Children’s ability to initiate and persist through tasks, monitor performance, inhibit behavior appropriately, shift attention as the task demands, and regulate emotional responses appropriately are all related to executive functions (Gioia, Isquith, Guy, & Kenworthy, 2000).

When students exhibit learning-related behavior problems, it is important to discern whether their responses are due to weaknesses in domain-specific content areas, such as linguistic processes, or weaknesses in regulatory executive control processes (Gioia et al., 2000). It may also be that the relationship between reading behaviors and self-regulation deficits is bidirectional (Morgan et al., 2008). For example, children with poor regulation abilities are more likely to both struggle academically and exhibit negative achievement behaviors, such as failure to pay attention, stay on task, and inhibit impulses (Brock, Rimm-Kaufman, Nathanson, & Grimm, 2009; Fitzpatrick & Pagani, 2013). There are some models that attempt to explain the co-occurrence of reading difficulties and behavior problems (e.g., frustration, avoidance, and withdrawal from learning tasks) (Morgan et al., 2008; Spira & Fischel, 2005). Unsurprisingly, deficits in executive functioning appear to emerge as a crucial factor in this cycle (Brock et al., 2009; Pennington, Groisser, & Welsh, 1993). The purpose of this study is not to disentangle the intrinsically related interactions among these three factors; rather, this study examines struggling readers’ executive functioning as a predictor of their helpless behaviors during learning-related tasks.

Role of Parenting Practices in Achievement Behaviors of Struggling Readers

Environmental factors, specifically parental involvement, are considered highly influential of achievement behaviors during homework assignments. In recent years, parents have received
emphatic messages from multiple resources, ranging from pediatric organizations to public campaigns, about the benefits of supporting literacy activities at home (Bus, Van Ijzendoorn, & Pellegrini, 1995; Crosby, Rasinski, Padak, & Yildirim, 2015; Sénéchal & LeFevre, 2014; Sénéchal & Young, 2008). Parental involvement in children’s homework takes many forms, but there is strong evidence to suggest that children’s achievement at the elementary level is heavily influenced by the quality, not simply the quantity, of involvement (Hoover-Dempsey et al., 2001; Moroni et al., 2015; Pomerantz et al., 2007). Controlling and emotionally rigid parenting practices can have deleterious effects on children’s motivation to learn (Baker, Mackler, Sonnenschein, & Serpell, 2001; Cooper, Lindsay, & Nye, 2000). Highly controlling parents often engage in invasive monitoring and offer obtrusive forms of assistance (Grolnick & Pomerantz, 2009; Pomerantz & Eaton, 2001). These practices have been found to inhibit children’s performance at school (Cooper et al., 2000; Ginsburg & Bronstein, 1993; Grolnick, Gurland, DeCourcey, & Jacob, 2002; Grolnick, Kurowski, Dunlap, & Hevey, 2000; Grolnick & Ryan, 1989; Ng, Kenney-Benson, & Pomerantz, 2004; Pomerantz et al., 2007). Conversely, parental support that fulfills children’s intrinsic need for autonomy in the learning process (Deci & Ryan, 1985) can boost motivation and satisfaction, and, in turn, improve academic performance (Cooper et al., 2000; d’Ailly, 2003; Dumont, Trautwein, Lüdtke, Neumann, Niggl, & Schnyder, 2012; Ginsburg & Bronstein, 1993; Grolnick & Ryan, 1987; Grolnick, Raftery-Helmer, & Flamm, 2012; Pomerantz et al., 2005; Pomerantz et al., 2007).

Critically, parents of children who struggle academically are more likely to employ controlling practices such as intrusive monitoring (i.e., checking children’s homework) and helping (i.e., teaching/guiding children in completing homework) (Margalit & Heiman, 1986; Pomerantz & Eaton, 2001; Silinskas, Niemi, Lerkkanen, & Nurmi, 2013), often because they believe their intrusion will make a positive difference in the child’s ability (Hoover-Dempsey et al., 2001). Yet, longitudinal studies indicate that an increased quantity of parental support does not necessarily contribute to the development of children’s academic performance (Levin et al., 1997; Silinskas et al., 2013). In fact, among struggling students, including those with learning disabilities,
increased parental involvement with homework has been related to reduced perceptions of academic efficacy in children (Gonida & Cortina, 2014), and greater tension between parents and children (Levin et al., 1997). In other words, parents of struggling students who engage in intrusive-support practices to assist their children may unwittingly be fostering helplessness in their children. It is therefore critical to identify predictors of helpless behaviors among struggling learners in order to provide parents with the tools to reinforce positive achievement behaviors in their children, as well as to improve the learning experience for both parents and children.

Research Questions

The current study was designed as a pilot study aimed at pushing our understanding of how individual and environmental factors contribute to helpless behaviors among struggling readers as they complete homework tasks. The study was designed to investigate specific contributions of two sets of internal variables (linguistic skills and regulatory functions) and environmental factors (parenting practices). To this end, the following research questions were explored: To what extent do children’s (1) written language abilities and comprehension; (2) oral language comprehension; (3) perceived efficacy in reading; (4) executive function skills; and (5) parents’ practices predict children’s helpless behaviors during homework tasks.

Method

Participants

Participants consisted of 36 predominantly Caucasian parent-child dyads (see Table 1). Children (61.1% boys) ranged in age from 6.1 to 12.8 years (mean = 8.92). Children were from different school districts in the northeastern United States and identified by their parents and teachers as struggling readers. Of these children, 26 were on Individualized Education Programs (IEPs), and two students were attending a school specialized in teaching students with learning and attention issues. The parents (97.2%
mothers) were predominantly married and highly educated, and 41.7% of parents reported personal struggles with learning. Families were recruited through emails and fliers distributed to public and independent schools and groups for individuals with dyslexia. The recruitment materials advertised a research study that explored the interactions between parents and struggling readers as they completed homework assignments. Each family received a

<table>
<thead>
<tr>
<th>Variable</th>
<th>Frequency $(n = 36)$</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Race</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian/White</td>
<td>31</td>
<td>86.1</td>
<td>86.1</td>
</tr>
<tr>
<td>African American/Black</td>
<td>1</td>
<td>2.8</td>
<td>88.9</td>
</tr>
<tr>
<td>Multiracial</td>
<td>4</td>
<td>11.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Grade Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Grade</td>
<td>1</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Second Grade</td>
<td>14</td>
<td>38.9</td>
<td>41.7</td>
</tr>
<tr>
<td>Third Grade</td>
<td>13</td>
<td>36.1</td>
<td>77.8</td>
</tr>
<tr>
<td>Fourth Grade</td>
<td>6</td>
<td>16.7</td>
<td>94.4</td>
</tr>
<tr>
<td>Fifth Grade</td>
<td>1</td>
<td>2.8</td>
<td>97.2</td>
</tr>
<tr>
<td>Sixth Grade</td>
<td>1</td>
<td>2.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Diagnosis Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Formal Diagnosis (No IEP)</td>
<td>8</td>
<td>22.2</td>
<td>22.2</td>
</tr>
<tr>
<td>Formal Diagnosis (IEP)</td>
<td>26</td>
<td>72.2</td>
<td>94.4</td>
</tr>
<tr>
<td>Attending Specialized School</td>
<td>2</td>
<td>5.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Reading Disorder</td>
<td>24</td>
<td>33.3</td>
<td></td>
</tr>
<tr>
<td>Attention Disorder</td>
<td>9</td>
<td>25.0</td>
<td></td>
</tr>
<tr>
<td>Communication Disorder</td>
<td>5</td>
<td>13.9</td>
<td></td>
</tr>
<tr>
<td>Anxiety Disorder</td>
<td>2</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Developmental Disorder</td>
<td>0</td>
<td>0.0</td>
<td></td>
</tr>
<tr>
<td>Fine Motor Disorder</td>
<td>1</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Parent Education Level</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School Graduate</td>
<td>1</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Some College Credit, No Degree</td>
<td>1</td>
<td>2.8</td>
<td>5.6</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>18</td>
<td>50</td>
<td>55.6</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>12</td>
<td>33.3</td>
<td>88.9</td>
</tr>
<tr>
<td>Professional Degree or Doctorate</td>
<td>4</td>
<td>11.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single, Never Married</td>
<td>1</td>
<td>2.8</td>
<td>2.8</td>
</tr>
<tr>
<td>Married or Domestic Partnership</td>
<td>31</td>
<td>86.1</td>
<td>88.9</td>
</tr>
<tr>
<td>Divorced</td>
<td>4</td>
<td>11.1</td>
<td>100.0</td>
</tr>
</tbody>
</table>
score report detailing their child’s performance on the standardized measures of reading and language ability.

**Overview of Procedure**

Children were accompanied to our lab by the parent who serves as their primary homework support. Written consent was obtained from parents while oral assent was obtained from children. All assessments of children’s reading skills, language ability, and motivation were administered one-on-one by a trained research assistant. Breaks were offered as needed. In a separate area of the lab, parents independently completed questionnaires regarding their parenting practices and their child’s behavior and executive functioning skills. As part of a larger study, families also worked together on a grade-level read-and-response task typical of a homework assignment. These tasks were recorded for later coding of behaviors.

**Measures**

Assessments administered to parents and children covered a variety of subjects and were presented in varying formats. Children’s reading and language abilities were assessed through standardized behavioral measures. Data about children’s executive function skills were gathered through a standardized parent report measure. All standardized measures provide raw scores and standardized scores on subtests or subscales. One half of the standardized measures were randomly double-scored to ensure reliability.

Parents’ reports about their practices during homework completion and general parenting style were collected through a questionnaire developed by the authors. Parenting practices were distinguished from parenting styles. Whereas parenting practices can be defined as specific behaviors that parents engage in while doing homework with their children (Darling & Steinberg, 1993), parenting style refers to the overall approach employed, specifically around dimensions of control and warmth (Darling & Steinberg, 1993; Gray & Steinberg, 1999; Grolnick & Pomerantz, 2009; Schaefer, 1965; Spera, 2005). Past literature cites both parenting practices and styles as critical factors in the
development of children’s autonomy and school-related outcomes (Grolnick & Ryan, 1989; Grolnick et al., 2002; Grolnick & Pomerantz, 2009; Pomerantz & Eaton, 2001). Questionnaires utilized in this study generated raw scores for each subscale and are described in depth below.

**Behaviors During Homework**

**PARENT PRACTICES**

This self-report questionnaire organized the behaviors parents employ during homework into three categories, or subscales, which represent types of parental support during homework tasks: *strategic, compensatory*, and *intrusive practices*. The measure was created by the authors, and is based on previous findings that the quality of parental involvement in children’s achievement often varies by degree, and capturing the nature of their assistance is critical for understanding achievement outcomes (Moroni et al., 2015; Pomerantz et al., 2007). The current measure expands on previous research that examined the degree of parental control, or intrusive support during homework (Pomerantz & Eaton, 2001), by including an additional subset of behaviors that compensate for a child’s lack, or perceived lack, of ability on a given task. This is particularly relevant for families of struggling readers.

Parent practices during homework were assessed using nine items that asked parents to indicate, using a five-point Likert scale, the degree to which they engaged in specific behaviors during homework (5 = very often, 4 = pretty often, 3 = often, 2 = sometimes, 1 = rarely, never). Results of a principal components analysis using varimax rotation supported the hypothesis that these nine items could be reliably divided into three scales, comprised of three items each. The first scale, strategic practices, assessed parents’ encouragement of independent mastery and included items such as, “[I] encourage [my] child to keep persisting through challenges.” The second scale, compensatory practices, assessed parents’ compensatory behaviors during homework and included items such as, “[I] scribe for my child.” The third scale, intrusive practices, measured the degree to which parents engaged in intrusive behaviors during homework and included items such as, “[I] correct [my] child’s mistakes when reading.”
In the principal components analysis, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy exceeded 0.6, and the Bartlett’s test of sphericity was significant, suggesting that the items shared sufficient variance to warrant the use of principal component analysis. The resulting three factor structure accounted for 72% of the total variance among these items. The Cronbach alpha coefficients were $\alpha = 0.66$ for strategic, $\alpha = 0.77$ for compensatory, and $\alpha = 0.83$ for intrusive practices.

PARENTING STYLE
This self-report questionnaire gathered information about parents’ overall style with which they raise their children. It was created by the authors as a modified version of previous assessments of parenting styles (Gottfried, Fleming, & Gottfried, 1994; Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Grolnick & Pomerantz, 2009; Grolnick, Raftery-Helmer, Marbell, Flamm, Cardemil, & Sanchez, 2014; Wang, Pomerantz, & Chen, 2007) that assess the degree to which parents are autonomy supportive and emotionally responsive, compared to controlling and emotionally unresponsive, during achievement tasks. The measure employs a five-point Likert scale on which parents indicate how often they exhibit the stated belief or behavior ($5 = \text{very often}$, $4 = \text{pretty often}$, $3 = \text{often}$, $2 = \text{sometimes}$, $1 = \text{rarely, never}$).

Results of a principal components analysis did not support the hypothesis that these 18 items could be reliably divided into two scales (e.g., autonomy supportive/emotionally responsive vs. controlling/emotionally rigid), comprised of 9 items each. Furthermore, neither parenting style subscale correlated with children’s helplessness, and scores were therefore removed from further analysis.

CHILDREN’S HELPLESS BEHAVIORS
Children’s helpless behaviors were assessed by an 8-item subscale on a larger questionnaire about achievement behaviors during homework. Parents reported on their child’s behavior using a five-point Likert scale to indicate the frequency of stated behaviors ($5 = \text{very often}$, $4 = \text{pretty often}$, $3 = \text{often}$, $2 = \text{sometimes}$, $1 = \text{rarely, never}$). The minimum possible score a child can receive on this scale is 8, representing little to no helplessness, whereas the maximum possible score a child can receive is 36, representing high levels of
helplessness. Items on the assessment include a constellation of behaviors commonly cited by previous literature on helplessness in children, including frustration and emotional outbursts during assignments (Fincham et al., 1989), as well as task avoidance and task refusal (Burhans & Dweck, 1995). Results of a principal components analysis supported the hypothesis that these 8 items could be reliably combined into one scale. The KMO exceeded 0.60, and the Bartlett’s test of sphericity was significant, suggesting that the items shared sufficient variance to warrant the use of principal component analysis. Internal consistency for the scale was examined using Cronbach’s alpha, 0.86, suggesting good internal consistency reliability.

Children’s Reading and Language Skills

READING FLUENCY AND COMPREHENSION
The Gray Oral Reading Test (GORT-5; Wiederholt & Bryant, 2012) is an individually administered measure of oral reading fluency and comprehension. The GORT has been validated as a reliable measure of reading fluency and comprehension, which has a strong correlation to academic ability (Wiederholt & Bryant, 2012). The GORT is a standardized norm-referenced test, in which a scaled score of 10 represents the mean and scores between 8–12 represent the average range. Children are asked to read passages of increasing complexity aloud, while deviations from print are noted. Children are then asked a series of open-ended questions by the examiner about the content of the passage. When reading a passage or story, children are required to integrate all of their linguistic skills including phonological processing, working memory, naming speed, efficiency in decoding and sight word recognition, and language comprehension. Often, children will perform well on individual linguistic skills, but struggle when asked to integrate these skills in order to read longer, more complex texts. On this measure children received separate scores for their reading fluency (the rate and accuracy with which they read) and their reading comprehension.

EXPRESSIVE AND RECEPTIVE LANGUAGE SKILLS
The Clinical Evaluation of Language Fundamentals (CELF-5; Wiig, Semel, & Secord, 2013) is an individually administered measure of language and communication ability. Like the GORT, the CELF is
a standardized norm-referenced test, in which scaled scores between 8–12 represent the average range. Children’s expressive language skills were measured with two subtests—Word Classes and Formulated Sentences. The Word Classes subtest evaluates children’s ability to understand relationships between words based on semantic class features, function, or place or time of occurrence. On this task, children are presented with visual and verbal stimuli and asked to name the two that go together best. The Formulated Sentences subtest assesses children’s capacity to integrate semantic, syntactic, and pragmatic rules and constraints while using working memory. Children are shown pictures and must formulate sentences that are appropriate to the context of the stimulus picture and incorporates the stimulus word.

One aspect of children’s receptive language skills was evaluated with the Understanding Spoken Paragraphs subtest which measures an individual’s ability to sustain attention and focus while listening to spoken paragraphs. On this measure children were read a series of oral narratives and asked factual and inferential questions about the stories. The questions probe for understanding of the main idea, facts and details, sequence of events and require inferential analysis.

Children’s Executive Function Skills

BEHAVIOR REGULATION SKILLS
The Behavior Rating Inventory of Executive Function (BRIEF) Parent Form is an 86-item questionnaire assessing children’s executive function behaviors in the home environment (Gioia et al., 2000). The BRIEF employs a normative scale in which raw scores are combined with age and gender in order to generate a standardized T score. A T score of 50 represents the mean, whereas scores between 40–60 represent the average range. The BRIEF’s 86 items exist within eight clinical scales that measure different aspects of executive functioning. They are Inhibit, Shift, Emotional Control, Initiate, Working Memory, Plan/Organize, Organization of Materials, and Monitor. The clinical scales combine to form two Indexes, Behavioral Regulation and Metacognition. The Behavioral Regulation Index (BRI) represents a child’s cognitive shifting ability as well as their ability to modulate emotions and behavior. It is comprised of the Inhibit, Shift, and Emotional Control scales.
METACOGNITIVE SKILLS
The *Metacognition Index* (MI) reflects the child’s ability to initiate tasks and self-monitor performance. It is comprised of the Initiate, Working Memory, Plan/Organize, Organization of Materials, and Monitor scales.

Children’s Perceived Efficacy for Reading

PERCEIVED EFFICACY
Children’s efficacy for reading was assessed as part of a larger measure that collected information about their motivation for reading and perceived parental autonomy. Statements were modified from the Reading Motivation Questionnaire (RMQ; Wigfield & Guthrie, 1995, 1997) and presented using a forced choice format, and a developmentally appropriate paradigm for measuring motivational beliefs among young children (Patrick, Mantzicopoulos, Samarapungavan, & French, 2008). At the beginning of the assessment, children selected a pair of identical puppets, and provided different names for each puppet. The puppets then alternatively represent positive and negative statements about reading. For example, the puppet named Jimmy says “Reading has always been hard for me”; conversely the puppet named Marcos says, “Reading is getting easier for me.” For each set of statements, the student was instructed to select the puppet that “is most like them.” The efficacy subscale contained three items, and each item was scored 0 (negative statement) or 1 (positive statement).

Although the efficacy scale had good internal consistency ($\alpha = 0.70$), as a group participants’ scores appeared negatively skewed, and results of the Kolmogorov-Smirnov statistic confirmed the skewed distribution. These findings indicate that the participants reported high levels of efficacy for reading despite weaknesses in literacy skills confirmed through standardized assessment. Inflated reports of confidence are not uncommon for younger students, particularly struggling readers. A recent study with fourth graders who scored poorly on measures of reading comprehension reported confidence levels that far exceeded their actual ability (Kaperski & Katzir, 2013). Thus, scores on the efficacy subtest were removed from further analysis.
Results

Analytic Technique

The goal of the current analyses was to assess the links among child and parent characteristics and children’s helpless behaviors during homework. As previously described, we were particularly interested in the links between parent behavior and children’s helpless behaviors as previous research demonstrates that autonomy-supportive parenting practices are often able to be modified through intervention and instruction (Su & Reeve, 2011). Before beginning our analyses, patterns of missing data were observed. In all, there were 17 missing data points of a total of 468 data points, representing 3% of the data. The missing data was spread among several variables such that no single variable appeared to be inordinately impacted by missing data. Given the extremely small amount of missing data and the fact that missingness was spread among several variables rather than clustered with a small group of variables, mean replacement with dummy variable adjustment was selected as the most robust of available missing data techniques considering our small sample size.

Descriptive analyses of all analytical variables were conducted first, followed by bivariate analyses to identify variables associated with children’s helpless behaviors. Variables that were not associated with children’s helpless behaviors were eliminated (including parenting style, defined by emotional responsivity). Next, hierarchical multiple regression was used to sequentially examine links between children’s helpless behaviors and each of the following variable sets: child demographic characteristics; reading skills; executive functioning; parenting behaviors during homework. Variables were entered into the regression equation in these four theoretical factors to observe the changes in the quality strength of the prediction of children’s helpless behaviors as each set of variables was added to the model. Following the hierarchical multiple regression, mediation analyses assessed whether parenting behaviors during homework are mediated by children’s reading, language, and executive functioning skills. The results section below first presents descriptive and correlational analyses, followed by hierarchical multiple regression and mediation models.
Descriptive Analyses

Descriptive analyses of all analytical variables were conducted (see Table 2). Children scored in the below average to average range on all standardized measures of reading and language ability according to the descriptive metrics of the GORT and CELF assessments, in which a scaled score of 10 represents the mean and scores between 8–12 represent the average range. Children were in the below average range on measures of their connected text fluency and reading comprehension (mean $\bar{D} = 5.80$, SD = 2.13; mean $\bar{D} = 7.03$, SD = 2.43). Children were in the average range on measures of oral language comprehension for single words (CELF-5: Word Classes; mean $\bar{D} = 8.50$, SD = 3.68) and narrative passages (CELF-5: Understanding Spoken Paragraphs; mean $\bar{D} = 9.72$, SD = 3.80). Children were in the below average range on the measure of structural linguistic knowledge and metalinguistic awareness (CELF-5: Formulated Sentences; mean $\bar{D} = 7.81$, SD = 3.54).

In order to assess children’s executive function skills, the parent report form of the BRIEF was employed. Composite $T$ scores were calculated to represent children’s overall ability to cognitively shift and modulate their emotions and behavior (Behavior Regulation Index: BRI) and initiate tasks and monitor

### TABLE 2 Descriptives of analytical variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>$M (n = 36)$</th>
<th>SD</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>GORT Fluency</td>
<td>5.80</td>
<td>2.13</td>
<td></td>
</tr>
<tr>
<td>GORT Comprehension</td>
<td>7.03</td>
<td>2.43</td>
<td></td>
</tr>
<tr>
<td>CELF Word Classes</td>
<td>8.50</td>
<td>3.68</td>
<td></td>
</tr>
<tr>
<td>CELF Understanding Spoken Paragraphs</td>
<td>9.72</td>
<td>3.80</td>
<td></td>
</tr>
<tr>
<td>CELF Formulated Sentences</td>
<td>7.81</td>
<td>3.54</td>
<td></td>
</tr>
<tr>
<td>BRIEF Behavioral Regulation</td>
<td>53.26</td>
<td>9.82</td>
<td>$\alpha = .94$</td>
</tr>
<tr>
<td>BRIEF Metacognition</td>
<td>60.00</td>
<td>11.36</td>
<td>$\alpha = .96$</td>
</tr>
<tr>
<td>Parents’ Strategic Practices</td>
<td>10.14</td>
<td>1.93</td>
<td>$\alpha = .70$</td>
</tr>
<tr>
<td>Parents’ Compensatory Practices</td>
<td>8.64</td>
<td>2.27</td>
<td>$\alpha = .72$</td>
</tr>
<tr>
<td>Parents’ Intrusive Practices</td>
<td>10.71</td>
<td>2.38</td>
<td>$\alpha = .83$</td>
</tr>
<tr>
<td>Helpless Behaviors</td>
<td>24.75</td>
<td>5.24</td>
<td>$\alpha = .86$</td>
</tr>
</tbody>
</table>

Note. GORT = Gray Oral Reading Test, 5th Edition; CELF = Clinical Evaluations of Language Fundamentals, 5th Edition; BRIEF = Behavior Rating Inventory of Executive Function. GORT and CELF scores are age-based scaled scores ($M = 10$, SD = 3). BRIEF scores are age- and gender-based $t$-scores ($M = 50$, SD = 10). Parental support scores are raw scores which range from 3–15. Helpless behaviors score is a raw score that ranges from 8–40.
their own performance (Metacognition Index: MI). The BRIEF employs a normative scale in which a $T$ score of 50 represents the mean, and $T$ scores between 40–60 represent the average range. The current sample scored within the normative average range established by the BRIEF on both the BRI (mean = 53.26, SD = 9.82), and the MI (mean = 60, SD = 11.36).

Correlations

Correlations among all analytical variables were conducted (see Table 3). The dependent variable of interest, children’s helpless behaviors, was significantly positively correlated with the two major factors of executive function: composite scores of Behavioral Regulation (BRI) ($r = .56$, $p < .01$) and Metacognition (MI) ($r = .40$, $p < .05$). Children’s helpless behaviors also significantly positively correlated with two of the three types of strategies or practices employed by parents during homework support: intrusive support ($r = .40$, $p < .05$) and compensatory support ($r = .34$, $p < .05$). The third parenting practice, strategic support, was found to positively correlate with helpless behaviors, but the correlation failed to reach significance ($r = .21$).

A significant negative correlation emerged between children’s helpless behaviors and one measure of children’s language ability, the ability to categorize words that share similarities, as assessed by the Word Classes subtest on the CELF-5 ($r = −.43$, $p < .05$). Children’s helpless behaviors did not significantly correlate with any measures of children’s reading ability.

Hierarchical Multiple Regression

Given that the total number of predictor variables was larger than is usually acceptable for the number of participants in this study, they were first grouped into five conceptual categories and each of these conceptual sets was entered into separate regression analyses, in which children’s helpless behavior served as the criterion. The first category included three variables measuring children’s demographic characteristics (Grade, gender, and IEP status). Race was excluded from this category given the small representation of non-White children (see Table 1). The second
<table>
<thead>
<tr>
<th>TABLE 3 Correlations among analytical variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
<th>4.</th>
<th>5.</th>
<th>6.</th>
<th>7.</th>
<th>8.</th>
<th>9.</th>
<th>10.</th>
<th>11.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. GORT Fluency</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. GORT Comprehension</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.81 **</td>
</tr>
<tr>
<td>3. CELF Word Classes</td>
<td>-.06</td>
<td>.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. CELF Formulated Sentences</td>
<td>.21</td>
<td>.40*</td>
<td>.58**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. CELF Understanding Spoken Paragraphs</td>
<td>.07</td>
<td>.30</td>
<td>.62**</td>
<td>.80**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. BRIEF Behavioral Regulation</td>
<td>-.07</td>
<td>-.01</td>
<td>-.39*</td>
<td>-.09</td>
<td>-.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. BRIEF Metacognition</td>
<td>-.09</td>
<td>-.10</td>
<td>-.09</td>
<td>-.17</td>
<td>-.15</td>
<td>.57**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Parents’ Strategic Support</td>
<td>-.06</td>
<td>-.01</td>
<td>-.06</td>
<td>.15</td>
<td>.02</td>
<td>-.05</td>
<td>-.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Parent’s Compensatory Support</td>
<td>-.53**</td>
<td>-.55**</td>
<td>-.18</td>
<td>-.51**</td>
<td>-.29</td>
<td>.21</td>
<td>.15</td>
<td>.19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Parents’ Intrusive Support</td>
<td>-.02</td>
<td>-.02</td>
<td>-.34</td>
<td>-.19</td>
<td>-.09</td>
<td>.02</td>
<td>.17</td>
<td>.05</td>
<td>.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Helpless Behaviors</td>
<td>-.21</td>
<td>-.19</td>
<td>-.43*</td>
<td>-.29</td>
<td>-.27</td>
<td>.56**</td>
<td>.40*</td>
<td>.21</td>
<td>.34*</td>
<td>.40*</td>
<td></td>
</tr>
</tbody>
</table>

*Note: GORT = Gray Oral Reading Test, 5th Edition; CELF = Clinical Evaluations of Language Fundamentals, 5th Edition; BRIEF = Behavior Rating Inventory of Executive Function. GORT and CELF scores are age-based scaled scores (M = 10, SD = 3). BRIEF scores are age- and gender-based t-scores (M = 50, SD = 10). Parental support scores are raw scores which range from 3–15. Helpless behaviors score is a raw score that ranges from 8–40. *p < .05, **p < .01.
was comprised of two measures of children’s reading ability (GORT Fluency and GORT Comprehension). The third was comprised of three measures of children’s language ability (CELF Word Classes, CELF Formulated Sentences, and CELF Understanding Spoken Paragraphs). The fourth contained two measures of children’s executive function skills (BRIEF BRI and BRIEF MI). The fifth and final category was comprised of the three parent practices variables (strategic support, compensatory support, and intrusive support). This process allowed for a thorough examination of the extent to which child and parent categories independently contributed to the variance in children’s helpless behavior. It also served to identify the significant predictors within each category.

In the first model, none of the demographic variables were significantly linked with helpless behaviors; however, they represent baseline covariates that are generally included in analyses of child behavior and were therefore included in the final model. The second model revealed that neither of the two GORT scales were significant predictors of helpless behaviors. In the third model, three subscales of the CELF measure were used and Word Classes emerged as the only significant predictor of helpless behavior ($\beta = -1.24, p < .01$). When the BRIEF BRI and MI scales were used in the fourth model, the BRI scale significantly predicted helpless behaviors ($\beta = 0.27, p < .01$). In the fifth model, the three scales assessing parenting practices during homework were used, and intrusive support emerged as the only significant predictor of helpless behaviors ($\beta = 0.77, p < .05$). Overall, these results offered empirical support for excluding scales from the final model that did not achieve significance.

Hierarchical multiple regression was performed next to assess the joint contributions of these four domains—demographic characteristics, language ability, executive function skills, and parent behaviors (see Table 4). As before, children’s helpless behaviors served as the criterion. Helpless behaviors scores ranged from 14 to 36 (out of a possible minimum and maximum of 8 and 36, respectively) with a mean of 24.75 and a standard deviation of 5.24.

The demographic characteristics (Grade, gender, and IEP status) entered in the first model (Model 1) accounted for no variance in children’s helpless behaviors. Adding language ability, as
assessed by the CELF Word Classes subscale, (Model 2) accounted for an additional 11% of the variance in children’s helpless behaviors ($\beta = -0.65$, $p < .05$). However, the addition of Word Classes did not add a significant increment to the $R^2$. Adding executive functioning skills (Model 3) accounted for an additional 20% of variance in helpless behaviors, $R^2$ change = 0.20, $F$ change (2, 29) = 4.20, $p < .05$. Finally, adding intrusive support (Model 4) accounted for an additional 10% of the variance in scores, $R^2$ change = 0.10, $F$ change (1, 28) = 4.75, $p < .05$. Intrusive support was found to be a significant predictor of helpless behaviors ($\beta = 0.79$, $p < .05$), and the BRI gained significance ($\beta = 0.23$, $p < .05$). Language ability, however, lost significance in the final model.

The final model as a whole accounted for 41% of the explained variance in helpless behaviors, $F$ (8, 27) = 4.07, $p < .01$. 

### TABLE 4 Summary of models predicting helpless behaviors during homework (n = 36)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$\beta$</td>
<td>$SE$</td>
<td>$\beta$</td>
<td>$SE$</td>
</tr>
<tr>
<td>Intercept</td>
<td>23.84**</td>
<td>5.05</td>
<td>27.36**</td>
<td>4.80</td>
</tr>
<tr>
<td>Demographic characteristics</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td>-0.29</td>
<td>1.00</td>
<td>0.17</td>
<td>0.93</td>
</tr>
<tr>
<td>Child Gender</td>
<td>-0.14</td>
<td>1.92</td>
<td>0.15</td>
<td>1.76</td>
</tr>
<tr>
<td>IEP</td>
<td>2.13</td>
<td>2.14</td>
<td>2.25</td>
<td>1.96</td>
</tr>
<tr>
<td>Language ability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CELF Word Classes</td>
<td>-0.65*</td>
<td>0.24</td>
<td>-0.49*</td>
<td>0.23</td>
</tr>
<tr>
<td>Executive function</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BRIEF BRI</td>
<td>0.18</td>
<td>0.10</td>
<td>0.23*</td>
<td>0.10</td>
</tr>
<tr>
<td>BRIEF Metacognition</td>
<td>0.12</td>
<td>0.09</td>
<td>0.06</td>
<td>0.08</td>
</tr>
<tr>
<td>Parent practices</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intrusive Support</td>
<td>0.79*</td>
<td>0.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model summary</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$F$</td>
<td>0.44</td>
<td>1.85</td>
<td>3.27*</td>
<td>4.07**</td>
</tr>
<tr>
<td>(Degrees of freedom)</td>
<td>(4, 31)</td>
<td>(5, 30)</td>
<td>(7, 28)</td>
<td>(8, 27)</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0</td>
<td>0.11</td>
<td>0.31</td>
<td>0.41</td>
</tr>
<tr>
<td>$R^2$ change</td>
<td>0.11</td>
<td>0.20</td>
<td>0.10</td>
<td></td>
</tr>
<tr>
<td>$F$ change</td>
<td>3.83</td>
<td>4.20*</td>
<td>4.75*</td>
<td></td>
</tr>
<tr>
<td>(Degrees of freedom)</td>
<td>(1, 31)</td>
<td>(2, 29)</td>
<td>(1, 28)</td>
<td></td>
</tr>
</tbody>
</table>

*Note: CELF = Clinical Evaluations of Language Fundamentals, 5th Edition; BRIEF = Behavior Rating Inventory of Executive Function. CELF scores are age-based scaled scores (M = 10, SD = 3). BRIEF scores are age- and gender-based t-scores (M = 50, SD = 10). Parental support scores are raw scores which range from 3–15. Helpless behaviors score is a raw score that ranges from 8–40. *$p < .05$. **$p < .01$. ***$p < .001$. 
It also revealed that, controlling for other factors, children’s BRI ($\beta = 0.23, p < .05$) and parents’ intrusive support ($\beta = 0.79, p < .05$) were the only significant predictors of children’s helpless behaviors. The relationships that we found in the final model between the independent variables and children’s helpless behavior echoed the results from the earlier models with fewer predictors.

To gauge the relative effects of children’s BRI and parents’ intrusive support, effect sizes were calculated with the formula, $\delta = \frac{\beta \times SD_y}{SD_x}$, and can be interpreted as the change, in standard deviation units, in the dependent variable resulting from a one standard deviation change in the independent variable. These calculations suggested that for every one standard deviation increase in children’s BRI, there was a 0.43 standard deviation increase in children’s helpless behaviors. Similarly, for every one standard deviation increase in intrusive support, there was a corresponding 0.36 standard deviation increase in children’s helpless behaviors.

**Sobel Tests for Mediation**

Sobel tests of mediation were used to consider whether the link between intrusive support and children’s helpless behaviors is mediated by language, reading, or executive functioning. The Sobel tests considered whether there were indirect effects of parenting through children’s language, reading, and executive functioning skills (Figure 1). None of the Sobel tests were statistically significant, suggesting that the link between intrusive parenting practices during homework and children’s helpless behaviors is not partially explained by children’s reading, language, and executive functioning skills.
Discussion

Nightly homework can pose an emotional and logistical challenge for families of struggling readers, which is frequently characterized by task avoidance and resistance. The present study was designed as a pilot study to better understand the differential contributions of cognitive, emotional, and environmental factors on helpless behaviors during homework tasks. Findings indicated that the most salient predictors of helplessness within the sample were the children’s behavior regulation abilities and their parents’ practices—more specifically, their intrusive behaviors. Neither language nor reading ability emerged as a significant predictor of helplessness. Furthermore, the link between intrusion and children’s helpless behaviors was not mediated by children’s language skills, reading abilities, or executive functioning skills. These results suggest that, among struggling readers, both intra-individual and environmental factors influence helpless behaviors. Among this select population, however, the contributions of actual language and reading skills appear to be negligible.

Children’s ability to regulate their behavior emerged as the single significant intra-individual factor in the final regression model, a finding consistent with prior research on the importance of executive functions as predictors of children’s academic achievement (Best, Miller, & Naglieri, 2011; Blair & Diamond, 2008; Brock et al., 2009; Blair & Diamond, 2008; Brock et al., 2009; Graziano, Reavis, Keane, & Calkins, 2007). Weaknesses in emotional control, an aspect of behavior regulation, have been associated with challenges in higher-order cognitive skills, such as sustaining attention to directions and planning assignments. Deficits in these areas can also result in reduced productivity, accuracy, and lower levels of overall achievement (Brock et al., 2009). Furthermore, in-class and at-home assignments, which provide opportunities to demonstrate academic proficiency, can trigger anxiety, defiance, and frustration in children with poor emotion regulation skills (Graziano et al., 2007).

In contrast to behavioral regulation, metacognition did not emerge as a significant predictor in the final model. Although metacognitive skills, such as initiation, working memory, planning, monitoring, and organization of materials, are related to academic work, it may be that typical homework assignments at
the elementary level are relatively straightforward, and do not exceed students’ higher level executive processes. Rather, the ability to regulate behavior, especially with regards to frustration, features more prominently in task completion and academic success (Howse, Calkins, Anastopoulos, Keane, & Shelton, 2003).

In addition to behavior regulation, the means by which home learning environments supports homework completion, specifically the type of practices employed by parents were also examined. Nuanced investigations into the quality of parental support, as opposed to simply the quantity of assistance, has demonstrated the importance of particular practices on children’s achievement (Moroni et al., 2015; Pomerantz et al., 2007; Silinskas et al., 2013). An established body of work has posited a convincing argument regarding the detrimental impact of controlling practices, which coerce, command, limit and/or intrude on children’s autonomy, or self-regulated learning (Grolnick, 2003; Grolnick, Deci, & Ryan, 1997; Hess & McDevitt, 1984; Grolnick & Pomerantz, 2005). In the current study, intrusive practices during homework emerged as the most important, significant environmental predictor of struggling readers’ helpless behaviors. For example, a pattern of intrusive corrections during reading or writing may put struggling readers at greater risk for resorting to helpless behaviors during their assignments. This finding extends previous work and elucidates the impact of specific intrusive practices on the achievement behaviors of struggling readers.

**Practical Implications**

Parental intrusion during homework may be the inevitable result of parents’ desire and perceived pressure to remediate their child’s weaknesses (Pomerantz & Eaton, 2001; Silinskas et al., 2013). Parents of struggling readers frequently correct errors and interrupt work in order to offer a “teaching moment” or help their child develop needed skills. Some parents perceive themselves to be as important as the teacher in building academic skills (Grolnick et al., 1997) and report themselves as playing an important role in their child’s academic development. Certainly providing the proper pronunciation of a word is helpful for children as they are learning to read but a persistent pattern of frequent intrusions may
unintentionally send a cue to the children that they are incapable of managing tasks independently. Furthermore, interruptions to correct may convey the message that effort or strategy use alone is not sufficient for success, and the child may feel pressure to achieve a prescribed standard of “performance.” Learning environments that endorse prescribed standards of success, otherwise referred to as performance orientations, are widely associated with helpless behaviors such as task avoidance among students (Kaplan & Maehr, 1999, 2007; Nolen, 1988; Urdan, Midgley & Anderman, 1998).

Although the child participants in this study were characterized by both poor reading ability and helpless behaviors during homework, neither reading nor language ability emerged as predictive variables, and mediation analysis confirmed that it did not influence intrusive parenting practices. These findings indicate that a helpless behavioral response is not necessarily the result of a deficiency in actual academic or linguistic skills, rather, the child’s and/or parent’s perception of low ability. Children who struggle academically are particularly sensitive to the nature of parental involvement, because they often seek opportunities to validate their feelings of competency (Pomerantz et al., 2005). Thus, when parents act in a manner that is controlling or intrusive, they may inadvertently convey messages of incompetence.

Although they are not always an accurate reflection of their actual abilities (Gonida & Cortina, 2014), parental perceptions of children’s capabilities contribute to their child’s perceived efficacy (Frome & Eccles, 1998), and predict involvement in homework tasks, in that the more parents perceive a weakness in their child’s skills, the more likely they are to monitor homework and offer assistance (Englund, Luckner, Whaley, & Egeland, 2004; Pomerantz & Eaton, 2001; Silinskas et al., 2013). The unintended outcome is increased parental support during homework tasks can result in dampened academic performance and self-regulated learning over time, particularly among struggling learners (Silinskas et al., 2013).

**Limitations and Future Research**

This study has several limitations that should be noted when interpreting the findings. First, the study’s sample of 36 children
was relatively small and consisted entirely of parent- and/or teacher-identified struggling readers. Furthermore, parent participants were homogenous and predominantly Caucasian, female, and well-educated. This limits the generalizability of the findings to typical readers, non-white and less-educated populations, as well as to fathers and other caregivers. Based on the purpose of the investigation, data were collected through parent reports rather than teacher reports, and although these reports were adapted from previous measures (e.g., Gottfried et al., 1994; Grolnick et al., 1997; Grolnick & Pomerantz, 2009; Grolnick et al., 2014; Wang et al., 2007) that have been statistically validated, they have yet to be re-tested for reliability.

Despite these limitations, findings from the present study have important and encouraging implications for future research and interventions. First and foremost, the helpless behaviors of struggling readers during homework tasks were not predicted by their actual linguistic and reading abilities; rather, they appear the outcome of a combination of regulatory weaknesses and environmental influences. Autonomy is considered to be a crucial component in developing students’ autonomous or intrinsic motivation (Ryan & Deci, 2000) and when students’ need for self-determination are explicitly addressed through the structure of their learning environment or task, reductions in task avoidance have been observed. As children feel more autonomy over their learning they are more likely to engage in tasks, consolidate knowledge and reduce stress. Although preliminary in nature, the findings from the current study lend support to the development of interventions that simultaneously offer scaffolds for supporting weaknesses in children’s behavior regulation, reading skills, and decreasing parents’ intrusive practices. Interventions that have targeted increasing autonomy-supportive practices in school settings have demonstrated promising trends in transforming achievement behaviors (Grolnick, Deci, & Ryan, 1997; Ng et al., 2004; Stoeger & Ziegler, 2008; Su & Reeve, 2001). At home, when parents structure learning experiences with clear expectations, predictable consequences, and process-based feedback, children are better able to regulate their behavior during academic tasks and increase competence (Farkas & Grolnick, 2010).
Conclusion

Homework in elementary school has only been found to have minimal impact on long-term achievement (Grolnick & Slowiaczek, 1994; Kohn, 2007; Senechal & LeFevre, 2002); however, the ongoing pressure to efficiently remediate weaknesses in reading will likely ensure the continued presence of home-based practice. The cumulative evidence in this article suggests that despite parents’ best intentions to remediate the skills of struggling readers during homework tasks, intrusive behaviors may in fact contribute to the presence of helpless behaviors. Notably, they lend support to a body of research that emphasizes the importance of the quality rather than simply the quantity of parental support as essential to developing independence among impaired readers. Given the important influence of the quality of parental support during assignments, future research should be designed to both collect authentic data regarding parents’ current practices and perceptions of their role in the homework process and support parents in fading intrusion and increasing autonomy-supportive strategies.

Despite their best intentions, the notion that parents’ efforts to assist their children with homework may unintentionally result in helpless behaviors, challenges the field to formulate alternative expectations for successful homework experiences. Finding a balance between supporting and intruding on a child’s learning experience is extremely challenging, and parents need guidance from researchers and educators on the practices that are most effective for eliciting positive achievement behaviors and ensuring experiences of “success” during homework tasks. Ongoing and interdisciplinary work in the fields of achievement motivation and special education can provide guidelines and insights for families as they navigate their children’s educational experiences at home and create learning environments that support positive outcomes.

ORCID

Melissa Orkin http://orcid.org/0000-0001-8824-1906
References


nal intervention techniques: A longitudinal study. *Child Development, 55*(6),
2017–2030.

achievement patterns in the family. *Journal of Educational Psychology, 87*(3),
375–385.

Hoover-Dempsey, K. V., Battiato, A. C., Walker, J. M., Reed, R. P., DeJong, J. M.,

Howse, R. B., Calkins, S. D., Anastopoulos, A. D., Keane, S. P., & Shelton, T. L.

Humphrey, N. (2002). Teacher and pupil ratings of self-esteem in developmen-

with children’s persistence/learned helplessness: A cross-cultural compari-

Kamins, M. L., & Dweck, C. S. (1999). Person versus process praise and criti-


Kaplan, A., & Maehr, M. L. (2007). The contributions and prospects of goal ori-

of Psychology, 44*(1), 23–52.

Kasperski, R., & Katzir, T. (2013). Are confidence ratings test-or trait-driven?
Individual differences among high, average, and low comprehenders in
fourth grade. *Reading Psychology, 34*(1), 59–84.

Katz, I., Buzukashvili, T., & Feingold, L. (2012). Homework stress: Construct vali-


Lareau, A. (2000). *Home advantage: Social class and parental intervention in elemen-

and relationship between phonological and motivational processes and nam-
ing speed in predicting word recognition in grade 1. *Scientific Studies of Read-

orientations as a function of divergent reading careers from pre-school to
the second grade. *Learning and Instruction, 10*(2), 153–177.

Levin, I., Levy-Shiff, R., Appelbaum-Peled, T., Katz, I., Komar, M., & Meiran, N.
(1997). Antecedents and consequences of maternal involvement in child-
ren’s homework: A longitudinal analysis. *Journal of Applied Developmental Psy-
chology, 18*(2), 207–227.


