

DISSERTATION APPROVAL PAGE

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Title: The Impact of Parenting Styles and Parent and Child Risk Factors on Child Behavioral and Learning Outcomes

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DISSERTATION ABSTRACT

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Title: The Impact of Parenting Styles and Parent and Child Risk Factors on Child Behavioral and Learning Outcomes

Parents engage in a variety of parenting behaviors emerging from different values and experiences. These behaviors have been categorized into parenting styles that include authoritarian, authoritative, permissive, and uninvolved. These styles have been associated with varied child behavioral and learning outcomes. The following exploratory study sought to identify which parenting styles are present in a community sample of parents with children in kindergarten in a Pacific Northwestern region of the United States to investigate the associations between parenting style, parent and child characteristics, and child behavioral and learning outcomes. This study includes the following research questions: (1) How common are the authoritarian, authoritative, permissive, and uninvolved parenting styles in a community sample of families with children in kindergarten? (2) Are authoritarian, authoritative, permissive, and uninvolved parenting styles associated with parent and child characteristics? (3) Do parenting styles predict child behavioral and learning outcomes? (4) Are associations between parenting styles and child outcomes moderated by parent stress and parent education level?

Study results for the first research question demonstrated that all four parenting styles were present within the sample. The second research question revealed that parenting styles were significantly associated with parenting stress and parent reported

child problem behaviors. Results for research question three demonstrated that differences were observed between uninvolved and other parenting styles. Parenting style did not predict teacher reported child academic competence nor the children's STAR literacy benchmark scores. Finally, results for the fourth research question revealed that differences between uninvolved and other parenting styles with respect to child behavioral concerns varied as a function of parent stress. Parent education level did not moderate this relationship. Differences between permissive and other parenting styles with respect to child academic competence varied as a function of parent educational background. Parenting stress did not moderate this relationship. Finally, neither parent stress nor parent education level moderated the relationship between parenting styles and child STAR literacy data benchmark scores. The results of this study have implications for targeted parenting interventions and identifying parenting strategies that are supportive to parents with children in early elementary school.

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I: INTRODUCTION

Parenting styles have been shown to have a significant impact on children's development (Baumrind & Mccandless, 1971). Parenting style is defined as a set of attitudes, goals, and patterns of parenting practices, which are thought to create an emotional climate for the parent-child relationship (Wood, McLeod, Sigman, Hwang, & Chu, 2003). The way in which a person chooses to parent, or their parenting style, has been found to have a direct effect on their child's behaviors (Muñoz-Silva, Lago-Urbano, & Sanchez-Garcia, 2017). There are different types of parenting styles that exist in various cultures, and the most influential research in this area is primarily rooted in Baumrind's original conceptualizations of authoritarian, authoritative, and permissive parenting styles (Aminabadi, Pourkazemi, Babapour, & Oskouei, 2012). In one of Baumrind's original studies, the author investigated various child-rearing practices and how they were associated with levels of behavioral competence in preschool children, finding that certain parenting styles were associated with different behaviors in their children (Baumrind, 1967). Specifically, children that were considered more mature had parents that were controlling, demanding, communicative, and nurturant, parents of discontent children tended to be non-nurturant, and children that were immature had parents that were non-controlling. A following study sought to identify parental attitudes and behaviors associated with levels of competency in their children and found that giving a child independence and having verbal give and take while also enforcing consistent discipline and demands were associated with children having stable and assertive behaviors (Baumrind & Black, 1967). These studies were crucial in Baumrind's development of three specific parenting styles including authoritarian, authoritative, and

permissive (Baumrind & Mccandless, 1971). Later, Maccoby and Martin (1983) added a fourth parenting style called uninvolved onto Baumrind's original three. This parenting style included parents that demonstrated little control over their children while also having little warmth (Spera, 2005). All four parenting styles have continued to be investigated in the literature. The definitions of and research on these parenting styles will be explored next.

Authoritarian

An authoritarian parenting style is defined as a parent attempting to shape, control, and evaluate their child's behavior on an absolute and dogmatic basis, and often favoring punitive and forceful measures when a child deviates from what the parent thinks is the correct conduct (Baumrind, 1971; 1968). This form of parenting can include threats, criticism, and enforcement of dictated rules (Dehart, Pelham, & Tennen, 2006). Values typically present within this parenting style include respect for authority, work, and the preservation of order and a traditional structure, while verbal give and take between the parent and their child is not encouraged (Baumrind, 1971; 1968).

Research has demonstrated a series of negative outcomes for parents with an authoritarian parenting styles and their children. Among authoritarian parenting style groups, higher use of punitive discipline has been associated with more externalizing and internalizing problems in children, and higher levels of yielding to coercion (e.g. levels of inconsistent discipline) has been linked to higher levels of internalizing and externalizing behaviors as well as social problems with their children (Fletcher, Walls, Cook, Madison & Bridges, 2008). Authoritarian parenting has also been associated with a lack of independence (Baumrind & Mccandless, 1971), less cooperative behavior (Howenstein,

2015), anxiety (Wood et al., 2003; Rapee, 1997), shyness (Wood et al., 2003), separation anxiety (Aminabadi, Pourkazemi, Babapour, Oskouei, 2012) and depression (Rapee, 1997) in children. In children with traumatic brain injury, higher levels of authoritarian parenting have been associated with greater executive functioning difficulties at 12 and 18 months after the injury (Potter et al., 2011). The relationship between authoritarian parenting style (specifically characteristics of control and rejection) and internalizing problems is consistent in adolescence (Barber, Olsen, & Shagle, 1994) and in adulthood (Reitman & Asseff, 2010). Authoritarian parents have been found to show steep decreases in monitoring during their child's adolescence, which may be due to adolescents choosing to spend more unsupervised time outside of the home and not based on parent preference (Luyckx et al., 2011). Higher scores on monitoring behaviors in authoritarian parents have been found to possibly protect against later maladaptive behaviors; however, the increased levels of internalizing behaviors for children of authoritarian parents may diminish these protective qualities (Luyckx et al., 2011). Over-reactive discipline has been found to be associated with increased cognitive distortions and metacognition (e.g., beliefs about worry) in adolescents (Gallagher & Cartwright-Hatton, 2008). Authoritarian parenting has additionally been found to be the least effective in deterring adolescent delinquency among different racial groups; however, disadvantaged neighborhoods have been found to have negative moderating effects of authoritarian parenting for Black youth engaging in delinquency (Mowen, & Schroeder, 2018). Japanese adults reported that authoritarian parenting style of their parents worsened their mental health including symptomatic problems, risk to self and others, life

functioning, and overall psychological wellbeing (Uji, Sakamoto, Adachi, & Kitamura, 2014).

Authoritarian parenting style has been associated with a series of negative characteristics in parents as well. One study found that mothers of adolescents who were experiencing high levels of trauma symptoms were more likely to engage in authoritarian parenting behaviors (Leslie & Cook, 2015). Mothers engaged in authoritarian parenting practices experienced more depression than mothers that were not engaging in this style. The results of another study investigating personality characteristics in parents suggested an association between a narcissistic and ruthless interpersonal style with a tendency to have higher levels of control and lower levels of warmth in the parent-child relationship (Cox, Kopkin, Rankin, Tomeny & Coffey, 2018). The authors also found that parents who were disengaged from interpersonal interactions and placed an emphasis on the rules may have been more likely to engage in authoritarian parenting practices (Cox et al., 2018). These characteristics are consistent with Baumrind's (1968) definitions and emphasis on low warmth and high use of dictated rules within this parenting style.

It should be noted however that while authoritarian parenting has been associated with negative outcomes for families with a European background or those from individualistic cultures, the outcomes are not always consistent among families that come from more collectivist cultures (Rudy, Grusec, & Kazak, 2006; Sorkhabi, 2005; Heberle, Briggs-Gowan, & Carter, 2015). For example, in a study comparing authoritarian parenting style in individualistic (e.g. Western or Eastern European background) and collectivistic (e.g. South Asian or Middle Eastern background) cultures, Sorkhabi (2005) found that a parent's appraisal of and feelings towards their child's behavior was more

significant than the parenting style itself in determining positive child outcomes (e.g., self-esteem). Maternal authoritarianism was higher in collectivist groups than individualist groups; however, it was not associated with higher levels of negative maternal thoughts or feelings towards their child, with lower levels of positive maternal thoughts or feelings, or with lower levels of children's self-esteem. For the individualist group, authoritarianism was associated with negative maternal thoughts and feelings about their child, although was not correlated with child self-esteem (Rudy et al., 2006). The authors argued that this suggests that higher levels of authoritarian parenting in collectivist groups does not necessarily have the same consequences for youth as it does in individualist groups with higher levels of authoritarian parenting. Additionally, what may be considered negative authoritarian behaviors in the U.S. may have different meanings and positive outcomes for children in immigrant families (Chao, 1994; Heberle et al., 2015). Chao (2001) found that an authoritarian parenting style among first generation Chinese American parents was not perceived as negative by their children, but instead was interpreted as showing care and concern for their children's wellbeing (as cited in Keshavarz Baharudin, & Mounts, 2013, pg. 264). For parents in collectivistic cultures, authoritarian parenting has been found to have positive developmental outcomes for adolescents (Keshavarz et al., 2013). For example, authoritarianism in Chinese parents has been found to be positively related to school performance for adolescents (Leung, Lau, & Lam, 1998). Additionally, the context in which a family lives is important for framing the impact of their parenting style on their children. Parents that integrate aspects of authoritarian parenting style may also be responding to their environmental context. For families that live in more dangerous neighborhoods for

example, exerting more control over a child's behavior may be a necessary functional adaptation to living in that environment, and can serve as a protective factor for children (Brody & Flor, 1998). Therefore, when considering this parenting style and its' effect on children, it is important to recognize cultural differences and interpretations of the parent-child interactions, as well as the family context, in order to understand the impact this style may have on children (Sorkhabi, 2005; Steinberg, Mounts, Lamborn, & Dornbusch, 1991; Brody & Flor, 1998).

Authoritative

An authoritative parenting style is defined by a parent directing a child in a rational way by sharing their reasoning behind instructions and encouraging verbal give and take from their child (Baumrind, 1971; 1968). In this parenting style, parents provide love and support towards their children while they also have clearly defined rules for appropriate behavior (Dehart et al., 2006) that are consistent with, and appropriate for, the child's developmental level (Maccoby, 1992). Important values inherent in this style include both autonomous self-will and disciplined conformity, ensuring the child recognizes the adult as the authority figure, and the parent setting the standard for appropriate behavior while also recognizing the child's unique interests and qualities.

The authoritative parenting style has consistently been identified as having the best impact on outcomes for children (Baumrind, 1971; 1968; Howenstein et al., 2015; Luyckx et al., 2011; Kuppens & Ceulemans, 2019) and adolescents (Mowen, & Schroeder, 2018). Authoritative parenting has been associated with more desirable child behavior (Howenstein et al., 2015; Querido, Warner, & Eyberg, 2002) more improved child behavior compared to authoritarian or permissive parenting (Aminabadi &

Farahani, 2008; Howenstein et al., 2015), and less relational aggression (Kawabata, Alink, Tseng, Van Ijzendoorn, & Crick, 2011). Children with authoritative parents have been found to be more socially responsible, with female identified children being slightly more achievement oriented compared to children of authoritarian parents (Baumrind & Mccandless, 1971). Children with authoritative parents have been found to have happier dispositions, greater emotional control and regulation, and improved social skills (Baumrind & Mccandless, 1971; Howenstein et al., 2015; Luyckx et al., 2011).

Authoritative parenting has been negatively associated with child negative emotionality and internalizing and externalizing behaviors (Paulussen-Hoogeboom, Stams, Hermanns, Peetsma, & Van Den Wittenboer, 2008). Authoritative parents have also been found to demonstrate high levels of monitoring during childhood with slight decreases across adolescence, demonstrating responsiveness to increased demands for independent decision-making (Luyckx et al., 2011). This monitoring appeared to protect against later maladaptive behaviors in children (Luyckx et al., 2011). Adults who remembered having authoritative compared with authoritarian or uninvolved parents reported greater psychological well-being and fewer depressive symptoms in adulthood (Rothrauff, Cooney, & An, 2009).

Authoritative parenting style has been associated with some positive characteristics in parents as well. Parents who utilize this parenting style tend to assume a lasting obligation to promote the best interests of their child even if they must set aside self-interests to do so, while also ensuring their child has increased levels of responsibility and responsiveness to meet the needs of others (Maccoby, 1992). One study found that authoritative and authoritarian parents engage in lower levels of coercion

than uninvolved or permissive parents (Fletcher et al., 2008). The authors highlighted that when parents are high in their responsiveness to their children (e.g., warmth) and demandingness (e.g., behavioral control), both characteristics of authoritative parenting style, children have been found to have more positive developmental outcomes.

Authoritative parents have been found to score the lowest for inconsistent discipline when compared to other parenting styles (Luyckx et al., 2011). Positive correlations have been found between mothers' authoritative parenting style and their use of positive coping strategies and improved family adaptation (Tancred & Greeff, 2015).

Maternal emotional intelligence, which impacts how the parent nurtures and interacts with their child, has also been found to be positively correlated with authoritative parenting style (Aminabadi et al., 2012). The authors emphasized that high emotional intelligence helps parents to maintain clarity in a situation and respond in an encouraging manner to their children. Personality traits including carefree nonplanfulness and rebellious nonconformity had a positive relationship with authoritative parenting, suggesting that increased parental indifference to planning and disregard for social norms was associated with moderate control and higher warmth in their parenting behaviors (Cox et al., 2018). These authors also found a negative association between authoritative parenting and fearlessness, suggesting that these parents may be less likely to engage in risky behaviors due to increased anxiety around high-risk activities (Cox et al., 2018).

The benefits of authoritative parenting style have been found to be consistent across cultural and ethnic groups (Steinberg et al., 1991; Querido et al., 2002; Uji et al., 2014), socioeconomic status, family structure (Steinberg et al., 1991), and child gender (Uji et al., 2014). Steinberg et al (1991) recognized the need to investigate parenting

practices among different cultural contexts as the research at the time had been primarily among white, middle-class families, who tended to have a more democratic relationship with their children. Therefore, they conducted a study including 10,000 high school students from diverse backgrounds, finding a positive association with mental health (e.g., less psychological distress) and school outcomes (e.g., better grades) for students with authoritative parents (Steinberg et al., 1991). Additionally, authoritative parenting, when compared with authoritarian parenting, predicted reduced depressive symptoms for white adults more than adults of color (Rothrauff et al., 2009).

Permissive

A permissive parenting style is defined by a parent being nonpunitive, accepting, and affirming towards the child's impulses, desires, and actions (Baumrind, 1971; 1968). Values include consulting with their child about policy decisions, explaining family rules, making few demands for household responsibilities or orderly behavior, and avoiding exerting control or obeying externally defined standards. In this parenting style, the parent will present themselves as a resource for their child and allow their child to regulate their own behaviors and activities and will not present themselves as being responsible for shaping the child's behavior (Baumrind, 1971; 1968). Permissive parenting has also been referred to as indulgent parenting in the literature (Fletcher et al., 2008; Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Luyckx et al., 2011).

Early research that found negative effects of punishment or rigid restriction of children led to a view that a permissive parenting style was ideal for children (Maccoby, 1992). However, more current research has demonstrated that while parents engaging in this parenting style can be affectionate, failing to regulate their child's behavior can lead

to low self-esteem as children do not learn appropriate forms of self-regulation (Dehart et al., 2006). Permissive parenting has been associated with worse behavior in children, which could be related to letting the child make decisions and attempting to keep the child happy through bribery (Baumrind & Mccandless, 1971; Howenstein et al., 2015). Male identified children with permissive parents have been found to be lacking in social responsibility when compared to those with authoritative parents but not relative to authoritarian parents (Baumrind & Mccandless, 1971). Similarly, female identified children with permissive parents have been found to be less independent when compared to those with authoritative parents, but not relative to authoritarian parents (Baumrind & Mccandless, 1971). Children of permissive parents have been found to demonstrate more severe increases in antisocial behavior over time (Luyckx et al., 2011), and maternal permissive parenting style has been found to contribute to low levels of empathy and antisocial behavior in young adulthood (Schaffer, Clark, & Jeglic, 2009). Greater use of punitive discipline on children with permissive parents has also been associated with more externalizing problems (Fletcher et al., 2008).

Interestingly, certain parental personality traits such as egocentricity and nonconformity have been found to be significantly associated with permissive parenting (Cox et al., 2018). Cox and colleagues (2018) highlighted that parents engaging in this parenting style may prefer to be viewed as a friend instead of as a parent by their child, that standards for behavior were absent, and that parents may be more “hands-off” and not have much concern for rules or structure in the home. Cox et al. (2018) also suggested that these parents may place their own needs and desires before those of their child. As children move through adolescence, permissive parents have been found to

decrease levels of monitoring and increase inconsistent parenting (Luyckx et al., 2011). While this may be more related to a parents' individual functioning and personality, it is an indicator of ineffective family management skills which can lead to increased externalizing behaviors in adolescence such as alcohol and cigarette use (Luyckx et al., 2011). Importantly, one study found that mothers of adolescents who were experiencing high levels of trauma symptoms were more likely to engage in permissive parenting behaviors (Leslie & Cook, 2015). This suggests that having an understanding of parent mental health, including parenting stress, is an important factor in understanding an individuals' style of parenting.

Uninvolved

Uninvolved parenting style can be defined as having low levels of control and demands on a child, while also having low levels of warmth (Spera, 2005). Parents who utilize this parenting style are similar to permissive parents in their levels of control and limit-setting behaviors but are different in that they have low levels of warmth and responsiveness to their children (Maccoby & Martin, 1983; Spera, 2005). The uninvolved parenting style has also been referred to as neglectful (Lamborn et al., 1991) and rejecting (Heberle et al., 2015) in the literature, as their practices resemble neglectfulness due to demonstrating little warmth towards or monitoring of their child's behavior, placing few restraints (Kuppens & Ceulemans, 2019), and overall being more indifferent to their children (Huver, Otten, De Vries, & Engels, 2010).

Uninvolved parenting has been associated with higher levels of problem behavior in toddlers, and this parenting style may increase child problem behavior for parents who may be experiencing multiple risk factors as well as parenting stress (Jones Harden,

Denmark, Holmes, & Duchene, 2014). Uninvolved parenting has been found to predict later problem behavior in children (Jones Harden et al., 2014). Uninvolved parenting, as well as paternal psychologically controlling parenting have been associated with increased relational aggression in children (Kawabata et al., 2011). Children with uninvolved parents demonstrate the most problematic development and have been found to have higher levels of externalizing behavior problems when compared to other parenting styles (Fletcher et al., 2008). Adolescents with uninvolved parents scored the lowest in measures of psychosocial competence and highest on measures of psychological and behavioral disfunction when compared to adolescents with parents of other parenting styles (Lamborn et al., 1991). Additionally, by senior year of high school, adolescents with uninvolved parents drank alcohol almost twice as much and smoked twice as much compared to their peers in authoritative and authoritarian households (Luyckx et al., 2011). Boys were particularly vulnerable to having a sharper increase in antisocial behavior over time (Luyckx et al., 2011). For white youth, uninvolved parenting has been associated with delinquency (Mowen, & Schroeder, 2018). Adults who remembered having uninvolved parents reported greater substance use in adulthood (Rothrauff et al., 2009).

Parents who utilize an uninvolved parenting style have been found to have poorer family management skills, which can lead to increased externalizing behaviors in their children and adolescents (Luyckx et al., 2011). Parents with an uninvolved style have also been found to utilize some psychologically controlling strategies with their children, such as having their child's thoughts and feelings fit into their own (Kuppens &

Ceulemans, 2019). Finally, uninvolved parents have also been found to use more punitive discipline strategies (Fletcher et al., 2008).

Evidence has found that a person's parenting style is related to their children's functioning across their lifespan (Rothrauff et al., 2009). Importantly, there are different factors that can influence the parenting style of an individual. For example, previous research has demonstrated links between parenting stress and parenting style (Hutchison, Feder, Abar, & Winsler, 2016). The following sections will discuss contextual factors that impact families, how these factors can influence a person's parenting style, and the impact that these contextual factors has on the parent-child relationship.

Family Contextual Factors

Parenting Stress

Stress experienced within the parenting role is distinct from stress experienced within other areas of life, and the day-to-day strain of parenting is an important aspect of mental health and functioning for parents, children, and the parent-child relationship (Deater-Deckard, 2004). General life stress and parenting daily hassles have also been found to significantly predict aspects of child, parent, and family stress (Crnic & Greenberg, 1990; Puff & Renk, 2014). Contextual factors frequently impact parent well-being and stress. For example, parents with a low level of education, who were low income, or at risk of teen parenting have higher levels of both general and parenting-specific stress (Ayoub, Vallotton, & Mastergeorge, 2011). Parenting stress and negative economic events have been found to predict children's internalizing problems, whereas parenting stress and general life stress have been found to predict children's externalizing problems (Puff & Renk, 2014). Parents experiencing economic stress have been found to

be less likely to feel supported in their parenting role, set limits, be satisfied with their own parenting, and engage in strong communication (Puff & Renk, 2014). This is a significant finding as parent emotional health status and their child-rearing style have been found to predict child adjustment and social-emotional functioning (Haskett, Myers, Pirrello, & Dombalis, 1995). Additionally, parents who experience lower levels of self-efficacy have been found to have higher levels of parenting stress, while those with higher self-efficacy experience less stress (Bloomfield & Kendall, 2012). Maternal self-efficacy has also been found to be a predictor of maternal discipline style after controlling for other parent and child risk factors (Sanders & Woolley, 2005). These realities highlight the importance of supporting parents and increasing parenting skills. Parent training should establish parenting confidence and skills, as these can help reduce stress associated with parenting, and reinforce a parenting style that is balanced by providing discipline as well as positive reinforcement (Greeno et al., 2016). Parenting stress can moderate the impact of parenting interventions on skills. For example, Stormshak, McIntyre, Garbacz, and Kosty (2019) found that parents who reported higher levels of stress benefited more from a family-based intervention that targeted parental monitoring, family routines, and parenting practices.

Differences in parenting stress have been found to be associated with parental style and child disability (Hutchison et al., 2016). Hutchinson and colleagues (2016) found that parents of children with Autism Spectrum Disorder (ASD) or Attention Deficit/Hyperactivity Disorder (ADHD) reported more parenting stress than those with typically developing children (Hutchison et al., 2016). Difficulties in executive functioning for children with ASD or ADHD was associated with greater authoritarian

and permissive parenting, and as executive functioning problems increased in children, parents reported using both more permissive (less restrictive) and authoritarian (more restrictive) parenting practices. While authoritative parenting is considered to be optimal, for parents with children with difficulties in executive functioning who experience additional stressors, it may be easier to give in to child demands or harshly punish when experiencing higher levels of parenting stress (Hutchison et al., 2016). As authoritative parenting can be challenging to implement with children with disabilities, parents may decrease their use of authoritative parenting practices over time (Woolfson & Grant, 2006).

Similar trends can be seen regarding a child's academics. Higher levels of parenting stress have been associated with the use of more controlling parenting strategies around a child's academics, while lower stress has been associated with more supportive styles (Rogers, Wiener, Marton, & Tannock, 2009). Alternatively, some parents who experience multiple risk factors as well as high levels of parenting stress are more likely to engage in an uninvolved parenting style (Jones Harden et al., 2014). Considering the link between parental stress and parenting style, more research is needed to understand the impact of parent experiences of stress on their parenting style and on their children's behavioral and academic outcomes.

Parent Education

There are a variety of factors in the family's environment and context that can influence parent behaviors and parenting styles (Heberle et al., 2015), such as a parents' level of education. Educational milestones experienced by an individual, such as graduating high school or college, can lead to benefits such as increased occupational

status and economic wellbeing (Pettit, Yu, Dodge, & Bates, 2009). Parent education level has also been linked to differences in parenting styles, parent behaviors, and disciplinary practices. For example, maternal education has been found to be negatively associated with harsh parenting, and positively associated with positive parenting (Carr & Pike, 2012) and maternal sensitivity (Heberle et al., 2015; Raviv, Kessenich, & Morrison, 2004). Parents with less than a high school education, less support (i.e., single parents), and fewer resources have been found to use authoritarian and permissive parenting styles, while authoritative parents are more likely to have a higher level of education (Aunola, Nurmi, Onatsu-Arviolommi, & Pulkkinen, 1999; Coolahan, McWayne, Fantuzzo, & Grim, 2002). A similar study found that younger, less educated, single African American mothers were found to be more likely to emphasize obedience in their children, suggesting that socioeconomic factors influence disciplinary styles in parents (Kelley, Power, & Wimbush, 1992; Querido et al., 2002; Spera, 2005).

Parent education level has also been associated with a variety of child behavioral and academic outcomes (Carr & Pike, 2012; Pettit et al., 2009). For example, low education levels for parents has been associated with increased parental stress (Ayoub et al., 2011), increased risk for negative social and behavioral outcomes in children (Pettit et al., 2009), and can have negative implications for child language outcomes (Raviv et al., 2004). Regarding academics, maternal education attainment has been found to be related to child educational achievement (Davis-Kean, 2005). Mothers with a higher level of education have been found to be more likely to provide scaffolding that was contingent on their child's performance compared to mothers with lower levels of education (Carr & Pike, 2012). These mothers are additionally more likely to share knowledge and utilize

better problem-solving strategies when instructing their children (Neitzel, & Stright, 2003). Overall, maternal education has a direct effect on children's academic success through cognitive competencies (Carr & Pike, 2012).

Parenting Style and Child Learning

An individual's parenting style is important for children's educational outcomes (Majumder, 2016), and parenting style and stress can impact a child's learning and academic success (Rogers et al., 2009). Research has demonstrated longitudinal relationships between early reports of parenting behaviors and later academic performance (Carlo, White, Streit, Knight, & Zeiders, 2018). Additionally, child adaptive and problem behaviors in preschool have been found to be predictors of social and behavioral outcomes for kindergarteners, which can have implications for later academic outcomes (Welchons & McIntyre, 2017). Different parenting styles have been found to have different types of outcomes on children.

Authoritarian parenting style has been associated with negative academic outcomes for students (Assadi et al., 2007). In fathers, this style has been found to have negative impacts on their child's academic skills, particularly around language development (Roopnarine, Krishnakumar, Metindogan, & Evans, 2006). Authoritarian beliefs and greater parental value on conformity (e.g., following directions, obeying school rules) instead of social autonomy (e.g., how to make friends, how to make decisions) has been found to have negative correlations child school performance (Okagaki & Sternberg, 1993; Roopnarine et al., 2006). Greater levels of punitive discipline strategies have been associated with lower academic grades and more social problems (Fletcher et al., 2008). Additionally, authoritarian parenting has been found to

have a negative correlation with creativity and a positive correlation with perfectionism for high-ability and high-achieving college students (Miller, Lambert, & Speirs Neumeister, 2012). Researchers have found positive associations between mothers' authoritarian parenting practices and academic attitudes (specifically grade importance) for male college students (Waterman & Lefkowitz, 2017). Conversely, female college students with more authoritarian mothers have been found to perform more poorly and attended class less frequently, potentially due to the high demand their mothers may place on them (Waterman & Lefkowitz, 2017). These patterns were present despite the distance these students had with their families during college, indicating that parental styles may have long-lasting impact on children's academic performance.

Authoritative parenting style has been found to have the most significant academic and social benefits for students (Assadi et al., 2007; Carlo et al., 2018; Checa, Abundis-Gutierrez, Perez-Duenas, & Fernandez-Parra, 2019; Kim et al., 2018; Steinberg, et al., 1991), and has been found to be the best type of parenting style to promote children's academic performance (Majumder, 2016; Steinberg et al., 1992). This positive influence can be found across different developmental stages, from young children (Kim et al., 2018) throughout adolescence (Majumder, 2016; Masud, Thurasamy, & Ahmad, 2015) and into college (Turner, Chandler, & Heffer, 2009). Parents who are more accepting, firm, and democratic (i.e., authoritative) were found to have adolescents that were more self-reliant, earned higher grades in school, were less likely to engage in delinquent behavior (Steinberg et al., 1991), and had stronger school engagement when there were high levels of parental involvement (Steinberg et al., 1992). These adolescents additionally reported less anxiety and depression than adolescents of parents with other

parenting styles (Steinberg et al., 1991). Parents with better family management strategies with their children have been found to predict a lower likelihood of suspensions in school during adolescence (Fleming, Mason, Thompson, Haggerty, & Gross, 2016). These results were consistent across family demographics including ethnicity, socioeconomic status, and parent's marital status.

The positive impact of authoritative parenting on academics can be seen across cultures. Based on a national sample, children of authoritative parents were predicted to have at least an additional year of schooling and were more likely to obtain a higher degree in school, relative to the children of uninvolved parents (Majumder, 2016). Children of authoritative parents were also less likely to drop out of high school than children of uninvolved parents (Majumder, 2016). For Iranian adolescents, academic achievement was found to be highest when parents engaged in an authoritative parenting style (Assadi et al., 2007). Mexican parents with an authoritative parenting style have also been found to be more likely to have a youth with high levels of prosocial behaviors, higher academic self-efficacy, and better academic achievement (Carlo et al., 2018). This is consistent with findings that suggest authoritative parenting serves a protective role with Latinx students and is associated with both academic and social-emotional school readiness (Kim et al., 2018). Authoritative parenting style has also been found to continually positively influence academic performance in college students who had moved away from home (Turner et al., 2009).

It is important to note that, similarly with children's behavioral outcomes, there exist some cultural differences in the impact of authoritarian and authoritative parenting styles on academic and learning outcomes on youth. There is a clear positive impact of

authoritative parenting across multiple groups of people (Steinberg et al., 1991), however some research has demonstrated that an authoritarian parenting style can have a positive impact on academic outcomes as well. For example, general authoritarian parenting has been found to be positively related to school performance for Chinese adolescents (Leung et al., 1998). In this instance, authoritative parenting was associated with positive school performance for American and Australian youth school performance but had no relationship with Chinese adolescent outcomes (Leung et al., 1998). Additionally, Mexican fathers with both authoritative and “no nonsense” (i.e., authoritarian) parenting styles were equally likely to have youths with high levels of prosocial behaviors (Carlo et al., 2018). Therefore, while authoritative parenting style is considered ideal for child and youth academic outcomes, there are differential impacts of authoritarian parenting style depending on the cultural context of the family.

Permissive parenting has been found to have positive correlations with child creativity (Miller et al., 2012). The authors suggest that having a high degree of responsiveness, a characteristic of permissive and authoritative parenting, is potentially most important for nurturing creativity in high-ability children. Permissive parenting style has been associated with negative academic outcomes for students (Assadi et al., 2007), and has been linked to different academic attitudes such as not viewing grades as important as parents in other parenting styles (Waterman & Lefkowitz, 2017). Yielding to child coercion, a characteristic more common in permissive parenting, has also been associated with lower academic grades (Fletcher et al., 2008). Fletcher and colleagues (2008) found that greater use of punitive discipline on children with permissive parents was associated with more externalizing problems.

Uninvolved or detached parenting styles can have a number of outcomes on children's academic functioning. For students in pre-kindergarten, uninvolved parenting has been associated with the poorest teacher-child relationships of any parenting style as well as classroom aggression (Paschall, Gonzalez, Mortensen, Barnett, & Mastergeorge, 2015). Uninvolved parents have been found to use more punitive discipline strategies, leading to children having lower levels of academic achievement and more social problems (Fletcher et al., 2008). Importantly, the reduction of negative parenting practices (e.g. lack of praise, negative or ineffective discipline) has been associated with both parent and teacher reports of improved homework performance for children with ADHD (Booster, Mautone, Nissley-Tsiopinis, Van Dyke, & Power, 2016) indicating that interventions targeting negative parenting practices can be effective at influencing child outcomes. Considering the current evidence, additional research is needed to investigate the impact of parental style on children's academic and learning success in kindergarten.

Bronfenbrenner's Ecological Model

This study design is informed by Bronfenbrenner's (1979) ecological model of human development (Figure 1). It is important to frame the discussion of parent-child relationships and the impact of parenting styles on child behavioral and learning outcomes around the contextual and ecological factors that influence a family. Bronfenbrenner (1979) developed an ecological model that focused on the interaction of an individual's development with their environment. An individual's behavior and development can involve unique aspects of their identity, such as their ethnicity, gender, or health conditions, as well as their interactions with environmental challenges and opportunities (Bronfenbrenner, 1979).

Bronfenbrenner (1979) identified four systems in which an individual operates, including the *microsystem*, the *mesosystem*, the *exosystem*, and the *macrosystem* (Bronfenbrenner, 1979). The *microsystem* involves the interrelations that an individual makes with their immediate setting, including their connection with the setting, the nature of this connection, and the influence of the connection on the individual. Examples can include an individual's family, peers, school, and church. Parents are as a major part of a child's *microsystem*, and the way that a parent chooses to raise their child has a significant impact on their child's lived experiences (Baumrind, 1967; Bronfenbrenner, 1979). The relationship between the individual and their *microsystem* will therefore be a significant element of this framework for the current study.

The *mesosystem* involves the interrelations between two or more settings in which an individual has experiences. This includes, for example, a child spending time doing activities in both home and school settings. The *exosystem* involves the connection between settings that an individual may never enter but where events may occur that affect what happens to a person's immediate environment such as social services, media, or neighbors (Bronfenbrenner, 1979). Finally, the *macrosystem* involves all of these interconnected systems which are viewed as manifestations of overarching patterns, ideologies, and organized social institutions present within particular cultures or subcultures. Therefore, the *micro-*, *meso-*, and *exosystems* within a particular group or culture may be very similar, while these systems may differ significantly between different social groups (Bronfenbrenner, 1979).

The present study considers Bronfenbrenner's (1979) work as a significant overarching framework for understanding parents, parent well-being and child behaviors,

and the parenting styles these parents employ. Within the *macrosystem*, the culture in which family lives (e.g. ethnic identity) and overarching cultural values (e.g., collectivism, individualism) can have a major impact on parenting norms and preferences (Sorkhabi, 2005). Environmental factors that influence parents such as their income, educational background, and stress levels, as well as their child's disability status and learning can all impact a parent, their relationship with their children, and their parenting practices (Steinberg et al., 1991).

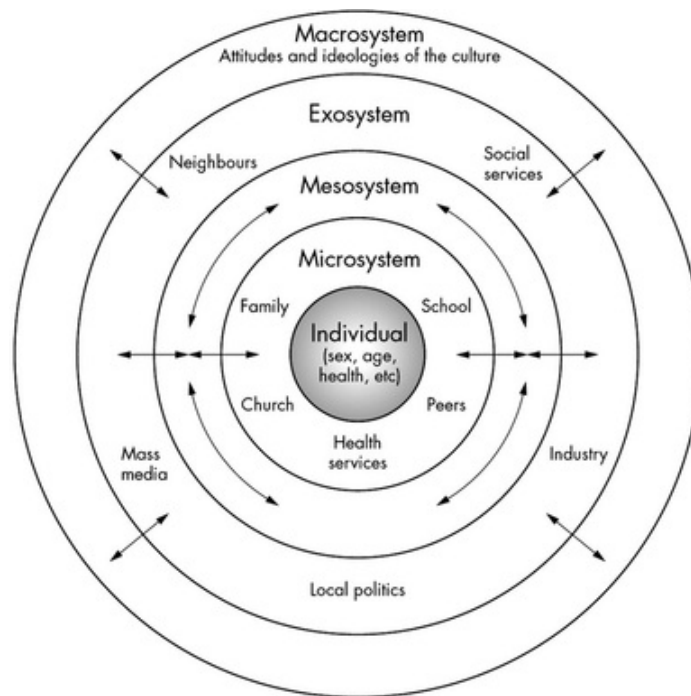


Figure 1. Bronfenbrenner's Ecological Model

Study Purpose

The current study seeks to investigate the presence and associations between parenting styles and parent and child characteristics on children's behavioral and learning outcomes for a sample of families with kindergarteners (Figure 2). Although many studies have investigated the presence and impact of parenting styles among different

populations, few studies examine all four parenting styles within the same group. Additionally, few studies have investigated the impact of these parenting styles for young children and linked these styles to both behavioral and learning outcomes in early elementary school. Therefore, the current study seeks to fill these gaps in the research.

Data were collected as part of the Kindergarten Study, a preventative intervention study conducted in the pacific northwestern region of the United States (R305A140189, Stormshak, PI). The current study used the first wave of data. The first theoretical framework for the current study includes Baumrind's (1967) original conceptualization of authoritarian, authoritative, and permissive parenting styles as well as Maccoby and Martin's (1983) additional uninvolved parenting style (Spera, 2005). The second theoretical framework includes Bronfenbrenner's (1979) ecological model of the impact of an individual's environment on their well-being. Parental style is identified through parent self-report measures. As there was no direct measure of parenting styles in the initial study, the data in the current study were analyzed using operational definitions of these styles along with cutoff scores on measures related to these definitions (e.g., parental warmth). Parent and child characteristics are measured through parent and teacher reports. The current study seeks to address current gaps in the literature and in our understanding the relationships of all four parenting styles and the behavioral and learning outcomes for their children in kindergarten (Figure 3). The results of this study can help to expand our knowledge of these relationships as well as how different parent characteristics may influence these relationships.

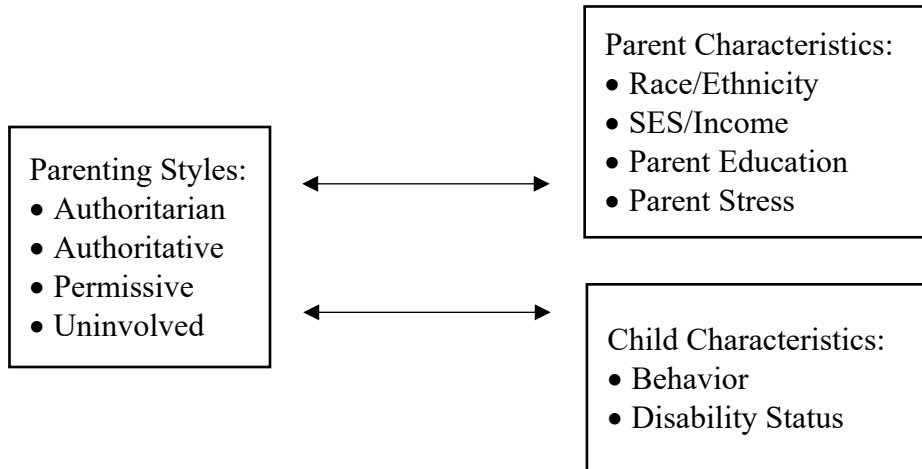


Figure 2. Conceptual Model 1

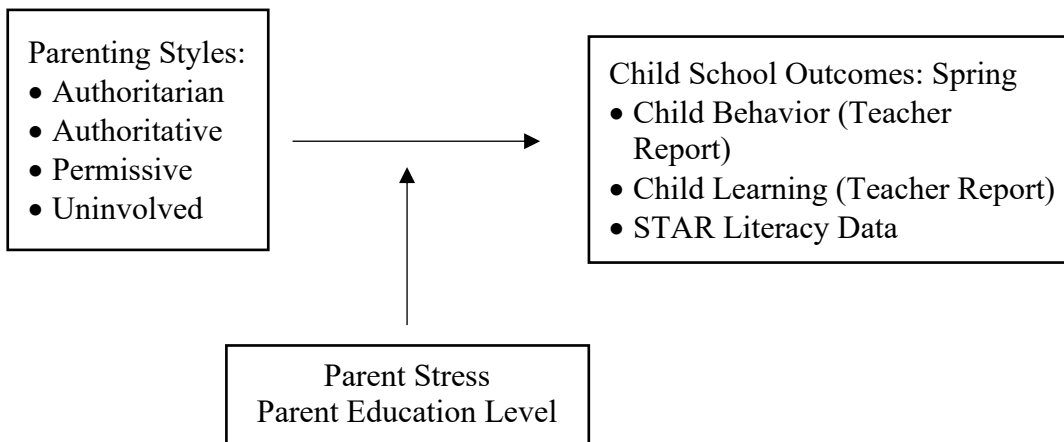


Figure 3. Conceptual Model 2

Research Questions

The conceptual models demonstrate the study aims to analyze the impact of parent and child characteristics on parenting styles and child behavior and learning outcomes, as well as the impact of parenting styles on teacher reported child behavior and learning outcomes. Specifically, this study will investigate the following research questions:

- (1) How common are the authoritarian, authoritative, permissive, and uninvolved parenting styles in a community sample of families with children in kindergarten?
- (2) Are authoritarian, authoritative, permissive, and uninvolved parenting styles associated with parent and child characteristics? (Figure 2)
- (3) Do parenting styles predict child behavioral and learning outcomes? (Figure 3)
- (4) Are associations between parenting styles and child outcomes moderated by parent stress and parent education level? (Figure 3)

II: METHOD

Participants

This study included 321 kindergarteners and their parents from a community in the Pacific Northwest. The term “parents” for the purposes of this study will include anyone who indicated they were a primary caregiver for the child, including biological, adoptive, or stepparents, grandparents, foster parents, and so forth. Parent participants spoke and read either English or Spanish, completed questionnaires and engaged in videotaped interaction tasks with their child.

Parents

Parent participants were primarily female (89.4%), an average of 33.9 years old ($SD = 6.32$), and a birth parent (96.2%). The sample was predominantly White (72.9%), followed by Hispanic (13.7%), multi-ethnic (7.8%), Asian (2.8%), Black (1.9%), and Native American (0.3%). The majority of the sample reported their native language to be English (84.4%), followed by Spanish (10.9%). Regarding education, 13.3% of parents had less than a high school education, 25.2% had graduated high school or had a GED, 24.6% had attended at least one year of college or specialized training, 10.6% had an Associate’s degree or attended Junior college, 17.4% had graduated a 4-year college or university, and 8.7% had graduate professional training or a graduate degree. Most parents were employed full time (42.4%), while others were a full-time homemaker (21.2%) or employed part-time (13.4%), and (8.1%) were unemployed. Income varied widely, with 7.3% of parents reporting an annual income of \$4,999 or less, 1.9% reporting \$5,000 – \$9,999, 4.8% reporting \$10,000 – \$14,999, 4.5% reporting

\$15,000 – \$19,999, 8.3% reporting \$20,000 – \$24,999, 7.3% reporting \$25,000 – \$29,999, 11.8% reporting \$30,000 – \$39,999, 10.8% reporting \$40,000 – \$49,000, 9.9% reporting \$50,000 – \$59,000, 5.4% reporting \$60,000 – \$69,999, 5.1% reporting \$70,000 – \$79,999 and \$80,000 – \$89,999 respectively, and 17.8% reporting \$90,000 or more. Parent stress levels were low to moderate, with a mean score of 1.44 ($SD = 0.53$) out of a possible score of 4.

Children

Children participants were an average of 5.45 years old ($SD = 0.50$), and over half (54.2%) were male. Children were predominantly White (58.9%), followed by multi-ethnic (22.1%), Hispanic (13.4%), Asian (2.2%), Black (1.9%), and Pacific Islander (0.3%). Additionally, 16.5% of children received special education services in school (e.g., IEP, 504 plan, behavior intervention plan). The parent reported SDQ shows that children had low levels of behavioral issues with a mean of 6.68 ($SD = 5.31$) out of a possible score of 52. The highest behavioral score received in the sample was a 26. The Strengths and Needs measure revealed that teachers also reported low child problem behaviors, with a mean score of 5.48 ($SD = 6.45$) out of a possible score of 27. Teacher report of child academic competence demonstrated a mean standard score of 98.30 ($SD = 16.07$), placing children in the average range. Children in the sample had academic competence scores ranging from a standard score of 65 (moderate impairment) to 122 (superior). STAR Literacy data demonstrated that on average children fell in the 59th percentile ($SD = 28.98$), placing them in the average range for literacy. Again, students' literacy scores ranged widely, from the 1st to 99th percentile. Detailed demographic information is reported in Table 1.

Table 1

Demographic Information for Parents and Children (N = 321)

Parents		Children	
Characteristic	% or M (SD)	Characteristic	% or M (SD)
Age (years)	33.90 (6.32)	Age (years)	5.45 (0.50)
% Female	89.40	% Male	54.20
% White	72.90	% White	58.90
% Hispanic	13.70	% Hispanic	13.40
% ≥ Partial College	61.30	% IEP/504 Plan	16.50
% Employed full-time	42.40	SDQ total score	6.69 (5.31)
Annual income (in \$)	30,000-39,000	Strengths and Needs	5.48 (6.45)
PSS	1.44 (0.53)	SSIS	98.30 (16.07)
		STAR	59.01 (28.98)

Note. PSS = Perceived Stress Scale, SDQ = Strengths and Difficulties Questionnaire, Strengths and Needs = Positive Family Support, Strengths and Needs Assessment, SSIS = Social Skills Improvement System, STAR = Star Literacy Benchmark Scores.

Protocol

The present study analyzed previously collected data from the Kindergarten Study. The Kindergarten Study was a randomized controlled trial that examined the effects of a preventative intervention on families with children transitioning into kindergarten. Home interviews and observations were scheduled with each family. Before the home visit, a consent form and a packet of questionnaires was sent to the family to complete. Home visits included a parent interview to obtain demographic information about the family, and a 22-minute videotaped observation of the parents and children interacting together. Families in the study that were assigned to the intervention condition received the Family Check-UP (FCU; Dishion & Kavanaugh, 2003), a family

intervention that uses an ecological approach to improve children's adjustment across settings (e.g., home, school) by motivating positive behavior support for children as well as other family management practices such as effective limit setting and parental monitoring (Smith, Dishion, Shaw, Wilson, & Nezu, 2013). This included an intake, home observation and feedback all delivered in the home, plus additional follow-up sessions for those who chose to do so (Garbacz, McIntyre, Stormshak, & Kosty, 2018). The control condition participated in an intake and home observation but did not receive any feedback or follow-up sessions (Garbacz et al., 2018). Intervention condition was not controlled for in this study.

Measures

Demographic Survey. Parents provided demographic information about themselves and their family during an in-person interview with a research assistant. Demographic questions included information such as parent and child age, sex, race/ethnicity, family income, employment, education, language(s) spoken in the home, and child disability. Additionally, some measures were completed as part of a survey prior to the home visit.

Parenting Styles

The following measures were utilized to establish parenting styles based on Baumrind's (1967) and Maccoby and Martin's (1983) definitions of parenting styles and included characteristics such as parental limit-setting and monitoring, positive parenting, and parenting warmth.

Parenting Young Children (PARYC; McEachern et al., 2012). This 21-item measure includes a series of questions for parents measuring quality time, proactive

parenting, limit setting, and positive parenting. For this study, composite scores for limit setting (seven items) and positive parenting (two items) were utilized. Example items include “Did you stick to your rules and not change your mind?” and “Did you notice and praise your child’s good behavior?” Parents responded on a 0-4 scale (0 = Never to 4 = Very often). The PARYC measure has been shown to adequately assess for these parenting behaviors, with limit setting items having a Cronbach’s alpha reliability at .79 and positive parenting items having a reliability at .78 (McEachern et al., 2012). The measure additionally has sound construct and convergent validity (McEachern et al., 2012). For this study and sample, the alpha score for limit setting was .79 and positive parenting was correlated at .47.

Monitoring and Family Routines (Child and Family Center, 2005). This 5-item self-report measure identifies parental monitoring of their child. Example items include “How often do you make sure your child is up on time for school?”, and “How often do you eat a meal with him/her?” Parents responded on a 0-4 scale (0 = Never to 4 = Very often), and composite scores were utilized for this study. The alpha reliability score was a .75 for this measure in the study sample (Stormshak, McIntyre, Garbacz, Caruthers, Winter, 2018).

Adult Child Relationship Scale (ACRS; Pianta, & Nimetz, 1991). The ACRS is an adaptation of the Pianta (2001) Student Teacher Relationship Scale, and a subset of 9 items from the ACRS were utilized to measure family relationships and parenting warmth. Example items include “if upset, this child seeks comfort from me”, and “this child likes telling me about him/herself”. The measure yields two scores, including the Conflict Relationship Score, and the Positive Relationship Score. For the current study,

the Positive Relationship Score was utilized to identify levels of parenting warmth (alpha of .79). Parents responded on a 5-item scale (0 = Definitely Not to 4 = Definitely), and composite scores were utilized. The alpha reliability for the items included in the full Positive Relationship Score was .73 (McEachern et al., 2012).

Parent and Child Characteristics

Perceived Stress Scale (PSS; Cohen, Kamarck, & Mermelstein, 1983). Parents completed this 14-item self-report questionnaire on their levels of stress and support in parenting their child within the last month. Example items include “How often have you felt nervous or stressed?” and “How often have you been able to control irritations in your life?” Parents answered questions on a 5-point scale (0 = Never to 4 = Very often), and composite scores were utilized for this study. The measure has demonstrated substantial validity and reliability, with a coefficient alpha reliability score of .85 (Cohen et al., 1983). For this study and sample, the alpha score was .84.

Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997). This 26-item measure focuses on child conduct problems, hyperactivity, emotional problems, peer problems, and prosocial behaviors. Example items include “My child often loses their temper” and “My child is generally liked by other youth”. Parents responded on a scale of 0-2 (0 = Not true to 2 = Certainly true), and the total score was utilized for this study. The SDQ has evidence for concurrent validity (Goodman, 1997), and has a Cronbach’s alpha reliability score of .77 for parents of 5-6-year-olds (Mieloo et al., 2012). For this study and sample, the alpha score was .85.

Child Behavior and Learning Outcomes

The following items were utilized to measure children’s early learning outcomes for participants in the study. These measures include teacher reports of child behavioral and academic data, as well as early literacy scores from spring of their kindergarten year.

Teacher Survey. This survey was sent to teachers at the beginning and end of the school year for each wave of the study, and the data collected in spring will be utilized for this study. The study includes items from two measures described below.

Positive Family Support – Strengths and Needs Assessment (Moore et al., 2016). Called “Teacher Concern” in the data, adapted items from this measure were utilized to gauge teacher experiences of child behaviors in school. Example items include “This student follows directions”, and “this student demonstrates positive social skills”. Teachers responded on a scale of 0-3 (0 = No concern, 3 = Serious concern), and a raw sum of the total score was utilized for this study. This measure has demonstrated strong validity and reliability with teachers, with a Cronbach’s alpha of .91 (Moore et al., 2016). For this study and sample, the alpha was .93.

Social Skills Improvement System (SSIS; Gresham & Elliott, 2008). This survey was utilized to measure teacher reports of child academic competence. Example items include “In reading, how does this student compare with other students?” and “In mathematics, how does this student compare with other students?” Teachers responded on a scale of 0-4 (0 = Lowest 10%, 4 = Highest 10%), and standard scores were utilized in the analysis. This teacher measure has yielded a reliability score of .81 and has strong concurrent validity (Crosby, 2011). For this study and sample, the alpha was .98.

STAR Assessment Data. This data includes spring benchmark scores of STAR early literacy assessment for students. The STAR assessment data will serve as a direct

measure of student learning and fluency in early literacy in kindergarten. Spring percentile rank scores were utilized in this study. This assessment has a reliability coefficient of .80 for kindergarten age children, as well as moderate predictive validity and concurrent validity, with average correlations of .52 and .64, respectively (Renaissance Learning, 2013).

Data Analysis

A series of analyses were conducted to address the research questions for this study. The results of the descriptive statistics are displayed in Table 1. Study variables were analyzed using the Statistical Package for the Social Science 25 (SPSS) computer program (IBM Corp, 2016). The following analyses were conducted to address each research question.

Research Question #1. How common are the authoritarian, authoritative, permissive, and uninvolved parenting styles in a community sample of families with children in kindergarten?

Analysis. As there was no direct measure of parenting style included in the original study, the first step was to develop specific criteria for categorizing participants into each of the four parenting styles based on the literature and a careful review of the variables included in the present data set. Indicators of each parenting style were based on Baumrind's (1967) and Maccoby and Martin's (1983) definitions of authoritarian, authoritative, permissive, and uninvolved parenting styles. Four areas of parenting style were used to categorize parents into authoritarian, authoritative, permissive, or uninvolved. These included limit-setting (establishing rules and maintaining consistency), monitoring (day to day activities such as morning routines and checking homework),

positive parenting (praising and rewarding good behavior), and parenting warmth (connection between parent and child). The variables of proactive parenting, quality time, and negative parenting were not included because they reflected broader parenting constructs such as the level of skills that a parent has or the family's contextual factors rather than parenting styles per se. Later, frequency distributions were examined and the percent of the sample with each parenting style was reported.

Authoritarian parents were defined as having high levels of limit-setting and monitoring behaviors, and low levels of positive parenting and parenting warmth. Authoritative parents were defined as having high levels of all four indicators. Permissive parents were defined as having low levels of limit-setting and monitoring, and high levels of positive parenting and parenting warmth. Uninvolved parents were defined as having low levels in all four areas of limit-setting, monitoring, positive parenting and parenting warmth. Indicators were dichotomized based on median splits in the data, where less than the median was considered "low" and equal or greater to the median was considered "high" levels of each parenting behavior. This study included a non-clinical sample of parents of primarily typically developing children with few behavioral concerns that chose to engage in a preventative parenting intervention, and therefore there was limited variability in parent responses (e.g. generally high levels of positive interactions and low levels of negative interactions; Huver et al., 2010). A statistical logic utilizing these high and low scores was created to categorize parents based on their fit in the logic.

It should be noted that the parameters and cutoff scores for parenting styles were more flexible than their definitions. For example, authoritarian parents are generally defined as being neither responsive nor warm towards their children (Baumrind, 1978;

Spera, 2005), but the logic included an option of being either high monitoring or limit-setting and either low parenting warmth or positivity. When stricter parameters were utilized the percentage of the sample that could be categorized into each parenting style decreased significantly. These final parameters were therefore utilized as they are both consistent with the literature as well as include a significant portion of the sample.

Due to the flexibility of the parameters, there were 188 families after running the analyses that did not fit into just one of the authoritarian, authoritative, or permissive parenting style categories. The next step therefore included creating a hierarchy to conservatively prioritize parenting styles with poorer child outcomes. In the literature, authoritative parenting style has been demonstrated to have the best outcomes for children's behaviors (Howenstein et al., 2015) and academics (Majumder, 2016), while authoritarian and permissive styles have been shown to have predominantly negative outcomes. Additionally, while there are clear negative outcomes associated with authoritarian and permissive parenting styles, there is more extensive research on the negative outcomes of authoritarian style (Fletcher et al., 2008). Within the hierarchy, if a parent was initially categorized as both authoritarian and authoritative, they would be placed in the authoritarian style group. If a parent was initially in both the authoritative and permissive groups, they would be categorized into the permissive group. Finally, for parents in both the authoritarian and permissive groups, they would be categorized into the authoritarian group. The group of parents that did not fit into this hierarchy included parents with the uninvolved parenting style. As uninvolved parents scored low across all parenting indicators, there was no overlap between these parents and parents within the other three styles.

Research Question #2. Are authoritarian, authoritative, permissive, and uninvolved parenting styles associated with parent and child characteristics?

Analysis. Crosstabulations were conducted to evaluate the associations between parenting styles and parent and child characteristics, including parent race/ethnicity, income, and education, and child disability status, and chi-square tests generated by the crosstabulations were used to examine the statistical significance of these relationships. Cutoff scores split each of these variables into two categories. Race/ethnicity was measured as white vs. non-white as the majority of parents in the sample were white. Family income was measured in the present study using categories containing \$10,000 increments. Income was dichotomized at above or below \$30,000 – \$39,000 because it roughly represents the federal poverty threshold for Medicaid for a family of four in the year the data were collected (People Keep, 2015). Parent education level was dichotomized as above or below some college (or specialized training) given that this categorization represented an educational experience distinct from high school only. Child disability was categorized as a child having an IEP, 504 plan, or behavior plan in school. One-way ANOVA analyses were utilized to assess the relationship between parenting style and the continuous variables of parenting stress and parent reported child behavior problems. Cohen’s d was calculated to determine differences in effect size between these variables. This was completed by dividing the mean difference between parenting style groups by the standard deviation of the measure. For this measure of the magnitude of the mean difference between groups, $d = .20$ is considered a small effect size, $d = .50$ is considered a medium effect size, and $d = .80$ is considered a large effect

size (Cohen, 1992; Cohen, 1988). The effect size helps to demonstrate the magnitude of effect with this population (Cohen, 1992).

Research Question #3. Do parenting styles predict child behavioral and learning outcomes?

Analysis. One-way ANOVA analyses were conducted to evaluate the association between parenting style and teacher reported child behavior problems, child academic competence, and STAR literacy benchmark scores for spring of their kindergarten year. Again, Cohen's d was calculated to determine differences in means between study variables.

Research Question #4. Are associations between parenting styles and child outcomes moderated by parent stress and parent education level?

Analysis. Two-way ANOVA analyses were conducted to evaluate whether parenting stress and parent education moderated the relationship between parenting styles and child outcomes. A Tukey post hoc multiple comparisons test evaluated all pairwise contrasts between parenting styles, which were examined in the case of a significant interaction effect. Additionally, to facilitate the interpretation of the results of different interaction effects, the continuous moderator of parent stress was mean-centered (Jaccard & Turrisi, 2003).

III: RESULTS

The Presence and Distribution of Parenting Styles

The results of the first research question, “how common are the authoritarian, authoritative, permissive, and uninvolved parenting styles in a community sample of families with children in kindergarten?”, included multiple analyses. First, cutoff scores utilizing the median split of parenting style indicators were utilized to categorize parents into parenting style groups. The four indicators and their characteristics are depicted below. (Table 2).

Table 2

Cutoff Scores Utilizing the Median Split of Parenting Indicators with their Means and Standard Deviations

Indicator	<i>M (SD)</i>	Median Split Score
Limit-setting	3.06 (0.53)	3.00
Monitoring	3.67 (0.44)	3.86
Positive parenting	3.29 (0.64)	3.50
Parenting warmth	3.67 (0.47)	3.80

Note. Scores on items ranged from 0 (no behaviors) to 4 (high levels of the behavior).

Scores for each indicator ranged from 1-4, with a 4 indicating that a parent reported to have high levels of the particular behavior. Means and median scores both demonstrate that overall, parents ranked themselves as engaging in high levels of limit-setting, monitoring, positive parenting, and warmth with their children. This was expected given the non-clinical nature of this sample. The statistical logic utilized to categorize parents into one of the four parenting styles revealed the distribution of parenting styles within the sample. Authoritarian parents totaled 40.8% of the sample,

permissive parents included 26.5% of the sample, 20.6% was categorized as authoritative, and uninvolved parents included the final 12.1% of the sample.

Table 3

Distribution of Parents in Each Parenting Style

Parenting Style	<i>N</i>	Valid Percent
Authoritarian	131	40.8
Authoritative	66	20.6
Permissive	85	26.5
Uninvolved	39	12.1

Note. Total *N* = 321.

Parenting Styles and Family Characteristics

To examine the results of the second research question, “are authoritarian, authoritative, permissive, and uninvolved parenting styles associated with parent and child characteristics?”, crosstabulation and one-way ANOVA analyses were conducted to determine associations between the various categorical and continuous variables (see Table 4). Results of χ^2 test demonstrated no significant relationship between parenting style and parent race/ethnicity, $\chi^2(3, N = 321) = 4.45, p = .217$. Additionally, while there was more variability in results between parenting style and income than with the other variables, the relationship was not significant, $\chi^2(3, N = 321) = 7.30, p = .063$. The relationship between parenting style and parent education, $\chi^2(3, N = 321) = 2.42, p = .491$, and parenting style and child disability status, $\chi^2(3, N = 321) = 0.41, p = .939$ similarly had no statistically significant relationship.

The one-way ANOVA evaluating the relationship between parenting styles and parenting stress demonstrated a statistically significant relationship, $F(3, 321) = 8.21, p <$

.001. Specifically, a Tukey post hoc multiple comparisons test revealed that uninvolved parents had higher levels of stress than authoritarian (M difference = 0.3, Cohen's $d = 0.56, p = .018$), authoritative (M difference = 0.5, $d = 1.02, p < .001$), and permissive (M difference = 0.3, $d = 0.52, p = .049$) parents. Both authoritarian (M difference = 0.2, $d = 0.47, p = .016$) and permissive (M difference = 0.3, $d = 0.50, p = .017$) parents demonstrated higher stress levels than authoritative parents. There was no statistically significant difference in stress between permissive and authoritarian parents (M difference = 0.02, $d = 0.04, p = .994$). Overall, authoritative parents demonstrated the lowest stress levels compared to parents in all other parenting styles.

The one-way ANOVA evaluating the relationship between parenting styles and parent reported child problem behaviors demonstrated a statistically significant relationship $F(3, 321) = 10.92, p < .001$. A Tukey post hoc multiple comparisons test revealed that, once again, uninvolved parents had children with higher levels of problem behaviors than children of authoritarian (M difference = 2.8, $d = 0.52, p = .016$), authoritative (M difference = 5.3, $d = 1.00, p < .001$), or permissive (M difference = 4.5, $d = 0.85, p = .000$) parents. Authoritarian parents had children with statistically significantly higher levels of problem behaviors than children of authoritative parents (M difference = 2.5, $d = 0.48, p = .006$). There was no statistically significant difference in child problem behaviors between authoritarian and permissive parents (M difference = 1.7, $d = 0.33, p = .069$) or between permissive and authoritative parents (M difference = 0.8, $d = 0.15, p = .782$). Overall, children of authoritative parents had fewer problem behaviors compared to children with authoritarian or uninvolved parents.

Table 4

Descriptive Statistics and Results of Crosstabulations of Family Characteristics and One-Way ANOVA for Parenting Style on Parenting Stress

Variable	Authoritarian	Authoritative	Permissive	Uninvolved	Test Statistic	<i>p</i>
	(<i>n</i> = 131)	(<i>n</i> = 66)	(<i>n</i> = 85)	(<i>n</i> = 39)		
	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)		
Race/ethnicity, <i>n</i> (%)	102 (77.9)	43 (65.2)	59 (69.4)	30 (76.9)	4.45	.217
Income, <i>n</i> (%)	74 (56.5)	41 (62.1)	48 (56.5)	14 (35.9)	7.30	.063
Education, <i>n</i> (%)	86 (65.6)	37 (56.1)	49 (57.6)	25 (64.1)	2.42	.491
Child disability, <i>n</i> (%)	20 (45.5)	11 (50.0)	13 (43.3)	9 (40.9)	0.41	.939
Parenting stress	1.45 (.55) _{bd}	1.22 (.46) _c	1.47 (.52) _{bd}	1.73 (.49) _a	8.21*	.000
Child problem behaviors	7.33 (5.36) _d	4.80 (5.08) _{bce}	5.59 (4.42) _{bd}	10.10 (5.45) _a	10.92*	.000

Note. $p < .001^*$. Percentage of parents who are white, have an income above \$40,000, have some college or more, and have children with a disability. Test statistic = X^2 for categorical variables, F value for continuous parenting stress variable. Values that share the same subscript within rows are not statistically significantly different, while unique subscripts are statistically significant ($p < .05$).

Parenting Styles and Child Behavioral and Learning Outcomes

To examine the results of the third research question, “do parenting styles predict child behavioral and learning outcomes?”, one-way ANOVA’s were conducted (Table 5). These analyses investigated whether an individuals’ parenting style influenced teacher reported child behavior concerns, teacher reported child academic competence, and STAR Literacy benchmark scores from spring semester of the children’s year of kindergarten.

Teacher Reported Child Behavioral Problems

Mean differences of teacher reports of child behavior problems indicated that uninvolved parents had children with statistically significantly higher behavioral concerns than children of permissive parents ($M\ difference = 4.8, d = 0.74, p = .002$) or authoritative parents ($M = 4.2, d = 0.65, p = .015$). The mean difference in teachers’ levels of concern between the children of uninvolved and authoritarian parents was not statistically significant ($M\ difference = 2.8, d = 0.42, p = .132$). There was no statistically significant difference between authoritarian and authoritative ($M\ difference = 1.5, d = 0.23, p = .468$) or permissive ($M\ difference = 2.1, d = 0.32, p = .122$) parents. Additionally, while authoritative parents had children with lower teacher reported behavior concerns than uninvolved parents, there was no statistically significant relationship when compared to the other parenting styles. Finally, there was no statistically significant difference in teacher reports of problem behaviors with children of permissive parents compared to authoritative parents ($M\ difference = -0.6, d = -0.09, p = .953$).

Teacher Reported Child Academic Competence

Next, mean differences between parenting styles and teacher reported academic competence were analyzed. Results demonstrated that academic competence did not differ by parenting styles (Table 5). Specifically, there was no statistically significant difference of child academic competence between uninvolved and authoritarian (M difference = -4.3, d = -0.27, p = .542), authoritative (M difference = -3.2, d = -0.20, p = .806), or permissive (M difference = -5.7, d = -0.35, p = .358) parents. The mean difference between uninvolved and permissive parenting had a moderate effect size (d = -0.35). There was no statistically significant difference in children's academic competence between permissive and authoritarian (M difference = 1.3, d = 0.08, p = .946) or authoritative (M difference = 2.4, d = 0.15, p = .836) parents. There was also no statistically significant difference teacher-reported academic competence between authoritarian and authoritative parents (M difference = 1.1, d = 0.07, p = .976).

Child STAR Literacy Benchmark Scores

Finally, differences in children's direct assessment of their literacy by parenting style was investigated by analyzing mean differences of students' spring STAR literacy benchmark scores. Results demonstrated that literacy scores did not differ by parenting styles (see Table 5). The mean difference of literacy scores between uninvolved and authoritarian (M difference = -2.2, d = -0.08, p = .982), authoritative (M difference = -9.4, d = -0.33, p = .481), or permissive (M difference = -10.5, d = -0.36, p = .349) parents was not statistically significant. The non-significant nature of this result could be due to the limited number of parents within the uninvolved group. Similar to academic competence, there was no statistically significant difference in literacy scores between permissive and authoritarian (M difference = 8.3, d = 0.29, p = .272) or authoritative (M difference = 1.1,

Table 5

Descriptive Statistics and Results of One-Way ANOVA for Parenting Style on Teacher Reported Child Problem Behaviors, Academic Competence, and STAR Literacy Scores

	Authoritarian (<i>n</i> = 131)	Authoritative (<i>n</i> = 66)	Permissive (<i>n</i> = 85)	Uninvolved (<i>n</i> = 39)		
Variable	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>M</i> (<i>SD</i>)	<i>F</i>	<i>p</i>
Behavior Problems	5.9 (6.2) _{cd}	4.4 (5.8) _{abd}	3.9 (5.8) _{bd}	8.7 (8.1) _c	5.02	.002
Academic Competence	98.7 (16.9)	97.6 (14.9)	100.0 (15.9)	94.3 (15.4)	0.95	.415
STAR Literacy	55.8 (28.9)	63.0 (26.9)	64.1 (28.9)	53.6 (31.7)	1.78	.151

Note. Values represent means and standard deviations of child outcomes for each parenting style. Values that share the same subscript within rows are not statistically significantly different, while unique subscripts are statistically significant ($p < .05$).

$d = 0.04, p = .997$) parents. Finally, there was no significant difference between authoritative and authoritarian parents (M difference = 7.2, $d = 0.25, p = .460$).

Parent Stress and Parent Education as Moderators

To examine the results of the fourth research question, “are associations between parenting styles and child outcomes moderated by parent stress and parent education level?”, two-way ANOVAs were conducted. Results were reported by analyzing the moderation effect of parent characteristics on teacher reported child behavior problems, teacher reported child academic competence, and child STAR literacy benchmark scores.

Teacher Reported Child Behavioral Problems

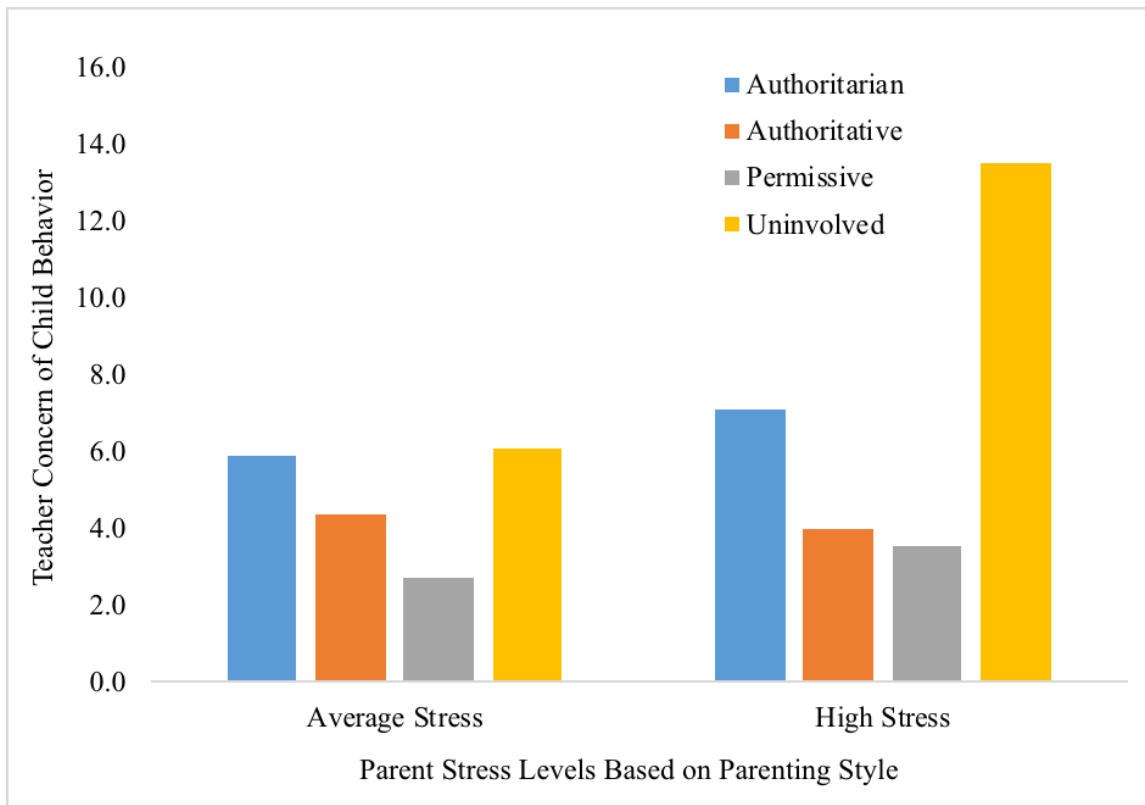
Research question four first asked: Do associations between parenting style and *teacher-reported child behavior concerns* vary by *parent stress*? Note that this question can be reworded as follows: Do parenting style differences in child behavior concerns vary as a function of parent stress? In this case, the omnibus test for parenting style by stress interaction term was statistically significant ($F[3, 267] = 2.85, p = .038$). Therefore, the interaction effect was decomposed, and specific contrasts generated by the interaction term were interpreted. The two-way ANOVA procedure was run multiple times with different reference categories in order to obtain all pairwise contrasts (Figure 4).

First, results indicated that differences in teacher concern scores between *uninvolved* and *authoritative* parenting styles varied by parent stress ($t = 2.70, p = .007$). Specifically, the model estimated difference in child behavior concerns between uninvolved and authoritative parents was 1.7 ($d = 0.26$) when parents reported average stress and 9.6 ($d = 1.49$) when parents reported stress one unit greater than average stress. Second, the results indicated that differences in teacher concern scores between

uninvolved and *authoritarian* parenting styles varied by parent stress ($t = 2.52, p = .012$). Specifically, the model estimated difference in child behavior concerns between *uninvolved* and *authoritarian* parents was 0.2 ($d = 0.03$) when parents reported average stress and 6.4 ($d = 1.0$) when parents reported stress one unit greater than average. Third, results indicated that differences in teacher concern scores between *uninvolved* and *permissive* parenting styles varied by parent stress ($t = 2.52, p = .012$). Specifically, the model estimated difference in child behavior concerns between *uninvolved* and *permissive* parents was -7.2 ($d = -1.12$) when parents reported average stress and -0.5 ($d = -1.10$) when parents reported stress one unit greater than average.

Figure 4

Teacher Concern of Child Behaviors for Different Parenting Style Groups with Average or High Levels of Stress



Note. Teacher concern reported with raw scores ($M = 5.4$, $SD = 6.4$, maximum possible score = 27).

Research question four then asked: Do associations between parenting style and *teacher-reported child behavior concerns* vary by *parent educational background* (some college versus no college education)? This question can be reworded as: Do parenting style differences in child behavior concerns vary as a function of parent educational background? Results of the two-way ANOVA demonstrate that the omnibus test for the parenting style by education interaction term was not statistically significant ($F[3, 267] = 2.53$, $p = .057$). Therefore, no specific contrasts were generated or interpreted.

Teacher Reported Child Academic Competence

Analyses then investigated the next part of research question 4: Do associations between parenting style and *child academic competence* vary by *parent stress*? Note that this question can be reworded as follows: Do parenting style differences in child academic competence vary as a function of parent stress? The omnibus test for the parenting style by stress interaction term was not statistically significant ($F[3, 269] = 1.03$, $p = .380$). Therefore, no specific contrasts were generated or interpreted.

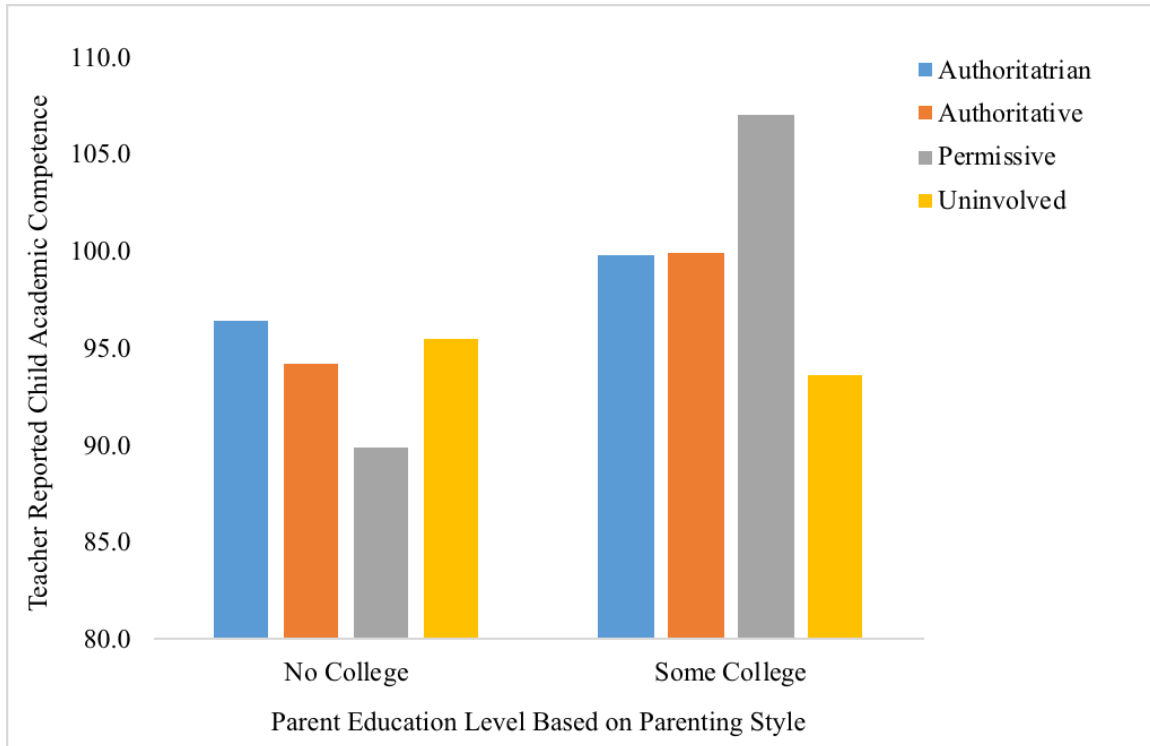
The fourth research question additionally addressed: Do associations between parenting style and *teacher-reported academic competence* vary by *parent educational background* (some college versus no college education)? Note that this question can be reworded as follows: Do parenting style differences in child academic competence vary as a function of parent educational background? Here, the omnibus test for the parenting style by education interaction term was statistically significant ($F[3, 269] = 3.83$, $p = .010$). Therefore, the interaction effect was decomposed and specific contrasts generated

by the interaction term were interpreted. Once again, two-way ANOVA procedures were utilized to obtain all pairwise contrasts (Figure 5).

First, results indicated that differences in academic competence scores on the teacher reported SSIS between *permissive* and *authoritative* parenting styles varied by parent educational background ($t = 2.04, p = .042$). Specifically, the model-estimated difference in SSIS scores between permissive and authoritative parents was -4.4 ($d = -0.27$) when parents had no college education (i.e., some college = 0) and 7.1 ($d = 0.40$) when parents had some college education. Second, results indicated that differences in academic competence scores between *permissive* and *authoritarian* parenting styles varied by parent educational background ($t = 2.90, p = .004$). Specifically, the model-estimated difference in SSIS scores between permissive and authoritarian parents was -6.6 ($d = -0.41$) when parents had no college education and 7.2 ($d = 0.40$) when parents had some college education. Third, results indicated that differences in SSIS scores between *permissive* and *uninvolved* parenting styles varied by parent educational background ($t = -2.78, p = .006$). Specifically, the model-estimated difference in SSIS scores between permissive and uninvolved parents was 5.7 ($d = 0.35$) when parents had no college education and -13.4 ($d = -0.8$) when parents had some college education.

Figure 5

Teacher Reported Child Academic Competence Levels for Different Parenting Style Groups with No or Some College Education



Note. Academic competence reported with standard scores ($M = 100$, $SD = 10$). Higher scores reflect more academic competence. Some college includes parents with some college education or more. No college education indicates parents with a high school diploma/GED or less.

Child STAR Literacy Benchmark Scores

Analyses then investigated the final part of research question four: Do associations between parenting style and *STAR literacy benchmark scores* vary by *parent stress*? Note that this question can be reworded as follows: Do parenting style differences in child literacy benchmark scores vary as a function of parent stress? The omnibus test for the parenting style by stress interaction term was not statistically significant ($F[3, 243] = 0.18, p = .913$). Therefore, we did not decompose or interpret specific contrasts generated by the interaction term.

The final part of the fourth research question additionally asked: Do associations between parenting style and *STAR literacy benchmark scores* vary by *parent educational background* (some college versus no college education)? Note that this question can be

reworded as follows: Do parenting style differences in child literacy benchmark scores vary as a function of parent educational background? The omnibus test for the parenting style by education interaction term was not statistically significant ($F[3, 243] = 1.66, p = .176$). Therefore, no specific contrasts were generated or interpreted.

IV: DISCUSSION

The present study sought to investigate the presence authoritarian, authoritative, permissive (Baumrind, 1967), and uninvolved (Maccoby & Martin, 1983) parenting styles among a normative community sample of families from the Pacific Northwestern region of the United States, and is one of the only studies to date to examine the relationship of all four parenting styles with kindergarten-aged children in a community sample. The study additionally sought to understand the associations and impact of these parenting styles with various child and family characteristics and risk factors, as well as the influence of moderating variables of parent stress and education on these relationships. The study revealed some interesting findings with implications for subsequent prevention and parent support efforts. Among the most important findings were that parenting styles were significantly associated with parenting stress and child problem behaviors and that teachers reported uninvolved parents had children with higher behavioral concerns than children of permissive or authoritative parents. Parenting stress moderated the relationship between uninvolved parenting style and teacher report of child behavior problems such that when parent stress level increased, the difference in teacher reported behavioral concerns also increased. Parent education moderated the relationship between permissive parenting style and teacher reported child academic competence. In this case, parental education served as a protective factor buffering against the negative effects associated with permissive parenting. Parents who used a permissive style and had lower levels of education had lower teacher-reported academic competence scores for their children. In contrast, parents who used a permissive style but had higher levels of education had children with higher teacher-reported academic competence scores.

Finally, there were a variety of mixed findings that merit further discussion. Next will be a summary of study findings, a review of some of the study limitations, and a discussion of implications for future research and practice.

The Presence and Distribution of Parenting Styles

All four parenting styles were present in this sample of 321 caregivers, with authoritarian parents being the most prevalent at 40.8%, then permissive parents (26.5%), authoritative parents (20.6%), and uninvolved parents (12.1%). There may be a few reasons why authoritarian parents made up the majority of this sample. First, cut scores based on median splits were utilized to determine the distribution of parenting style variables within this sample. Because an authoritative parenting style is considered ideal for many populations (Baumrind, 1971; 1968; Steinberg et al., 1991), a conservative hierarchy was included, favoring distributing parents into authoritarian first and then permissive parenting styles when parents overlapped in parenting style categories. Therefore, parents were more likely to be categorized into the authoritarian style over the authoritative or permissive styles.

Second, this study included a community sample of parents engaged in a preventative parenting intervention that overall had few high-risk behaviors compared to what would be expected in a clinical sample of families receiving treatment. Relative to other parents in the sample, authoritarian parents reported higher limit-setting and monitoring behaviors with low warmth and positive parenting behaviors. However, this combination of behaviors is possibly not as intensive or problematic for child outcomes as it would be in a higher risk sample. Therefore, authoritarian parenting, as well as the

other parenting styles and parent behaviors associated with these styles, should be understood within the context of this sample.

Third, high levels of limit-setting and monitoring is appropriate for parenting kindergarten aged children (Webster-Stratton, 2005), and authoritarian parents place a strong emphasis on following rules (Cox et al., 2018). All parents in this sample had young children in kindergarten (aged 5 – 6 years), and therefore having more parents categorized in the authoritarian parenting style may be, in part, a reflection of the developmental age of these children. Although engaging in strong limit-setting and monitoring practices with children this age is important, the lack of warmth, positivity, and disengagement from interpersonal interactions is often still problematic (Cox et al., 2018), particularly for different areas of child development.

Permissive parents represented the next largest group, including 26.5% of the sample. Again, cut scores were utilized to determine parenting style characteristics, including high levels of parenting warmth and positivity, with low levels of monitoring and limit-setting. Additionally, the conservative statistical hierarchy prioritized permissive over authoritative parents when parents fell into both categories, as permissive parenting is considered to be a less effective parenting style in the literature (Baumrind, 1971; Dehart et al., 2006). Considering that family participants were a non-clinical community sample with children exhibiting overall few behavioral or emotional problems, it may not be unusual that about a quarter of the sample fell into the permissive parenting group. It is possible that with few behavioral concerns, some parents do not need to set as many limits or impose high levels of structure, and may have children that are more self-directed. Additionally, parents can possibly afford to be more permissive as

families in this sample generally have a low risk for clinical concerns and may be better able to demonstrate warmth and positivity towards their children than families experiencing higher stressors or who are in higher risk environments. Study results for research question four, which is discussed later in greater detail, provide additional evidence for this dynamic as teacher reports of academic competence for children with permissive parents was higher when the parents themselves were more educated. Therefore, parents having fewer rules and limitations around the home may not have the same negative impact when children live in a more educated household.

Authoritative parents were ranked third most common among the sample and included 20.6% of parents. Authoritative parents respond in a reciprocal and contingent manner towards their children and frequently attend to their child's needs, which exerts high levels of energy (Coolahan et al., 2002). Additionally, authoritative parents have been found to have the lowest levels of inconsistent discipline strategies when compared to other parenting styles (Luyckx et al., 2011). For parents who lead busy lives and have high demands outside of their parenting role, engaging in these positive and effective parenting practices can be difficult to maintain. Using these practices consistently may be related to a parent's functioning and personality (Holden & Miller, 1999), as well as their family management skills (Luyckx et al., 2011). As the ideal balance of maintaining consistent limit setting and monitoring with high warmth can be difficult under stressful circumstances, this parenting style may be the most difficult one to engage in consistently. Despite the sample being non-clinical in nature, this group of parents reported experiencing stressors, which can contribute to less effective parenting practices

and difficult behaviors in children (Puff & Renk, 2014). Considering this, it makes sense that authoritative parents represented about one-fifth of the overall sample.

Uninvolved parents accounted for the final 12.1% of this sample, which was the smallest group of parents ($n = 39$). Finding parents that engaged in parenting behaviors congruent with this parenting style was unexpected. Uninvolved parents demonstrate low levels of limit-setting and monitoring, while also showing little warmth towards their children (Maccoby & Martin, 1983; Spera, 2005). Parents with an uninvolved parenting style may be less likely to participate in research, and considering that the current study included potential participation in a preventative parenting intervention, it was unexpected to have uninvolved parents in this sample. However, while uninvolved parents in the sample demonstrated low monitoring and low warmth towards their children, it is important to note that this is within the context of a non-clinical sample of parents. It is possible that the parents in this group would not be categorized within the uninvolved parenting style if they were included in a high-risk sample.

Parenting Styles and Family Characteristics

The second research question was: Are authoritarian, authoritative, permissive, and uninvolved parenting styles associated with parent and child characteristics? Study results demonstrated no significant associations between parenting style and parent race/ethnicity, income, parent education, and child disability status. Previous research on the relationship between parenting style and family race/ethnicity has mixed results. Research has identified that the authoritarian parenting style can have different outcomes on children based on racial and ethnic differences of the family, in that it can have negative outcomes for children from individualistic cultures may have positive outcomes

for children from collectivistic cultures (Sorkhabi, 2005). However, other studies have identified similar effects of parenting styles regardless of the racial or ethnic background of the family (Mowen, & Schroeder, 2018). Authoritative parenting style has been found to be considered the ideal parenting style across different racial and ethnic groups (Steinberg et al., 1991). Notably, much of the literature on parenting and parenting styles has been conducted with white, middle-class families (Steinberg et al., 1991), and the current study primarily included white parents (72.9%). Therefore, the lack of significant results between parenting style and parent race/ethnicity in this study makes sense given the demographic nature of this sample.

There was no significant relationship found between parenting style and family income. This finding was not surprising given that it is consistent with previous literature (Anton, Jones, & Youngstrom, 2015). Family income has been found to have an impact on child emotional and behavioral outcomes, and therefore it was important to evaluate the impact of income on the family context with this sample (Dooley & Stewart, 2004). However, the result was congruent with previous research indicating no significant relationship.

This study demonstrated no significant relationship between parenting style and parent education level. This finding is contradictory to previous research demonstrating that parents with a low level of education and fewer resources and supports tend to engage in authoritarian and permissive parenting styles, while authoritative parents are more likely to have a higher education level (Coolahan et al., 2002). This sample had some variability in education levels, however the majority (77.8%) of participants had an education level ranging from a high school diploma or GED to a bachelor's degree. As

there were fewer parents that had less than a high school diploma and more than a bachelor's degree, it's possible that the sample did not have enough variability to demonstrate statistically significant differences between groups.

The current study found no significant relationship between parenting style and child disability status. This result is contradictory to previous literature demonstrating that parents with children with disabilities are more likely to engage in either authoritarian or permissive parenting styles due to the increased difficulties raising a child with a disability (Hutchison et al., 2016). However, the lack of a significant relationship between these variables in the current study may be due to the low rate of children with disabilities in the sample (16.5%). Therefore, while this result is not consistent with previous literature regarding child disability, it is not entirely surprising given the characteristics of this sample.

Parenting Style and Parenting Stress

Results demonstrated a statistically significant association between parenting style and levels of parent stress. Parents within this study had generally low to moderate levels of stress, which is congruent with the low-risk nature of the sample and makes this finding more meaningful. Consistent with the literature, authoritative parents were found to have the lowest levels of stress when compared to parents utilizing all other parenting styles (e.g., Gouveia, Carona, Canavarro, & Moreira, 2016; Monaghan, Horn, Alvarez, Cogen, & Streisand, 2012), and higher levels of stress for parents utilizing authoritarian and permissive parenting styles (e.g., Gouveia et al., 2016; Hutchison et al., 2016). Authoritative parenting typically requires more skills, as parents within this style must strike a balance between limit-setting and monitoring behaviors and warmth and

positivity with their children. Authoritative parenting can be more challenging for parents to implement when they have children with higher behavioral problems and developmental delays (Woolfson & Grant, 2006). However, the current study sample demonstrated that even for families without children with disabilities or significant behavioral problems, authoritative parenting can be difficult to achieve. A parents' self-esteem and beliefs in their ability to manage a situation with their children is associated with authoritative parenting (Aunola et al., 1999) and low parental stress (Aunola et al., 1999; Bloomfield & Kendall, 2012). Therefore, the level of skills and parenting strategies that a parent has can be related to their self-esteem and sense of self-efficacy as a parent. These findings highlight that even among a sample of parents with relatively low levels of stress, authoritative parents consistently demonstrated the lowest levels of stress when compared to parents of other styles.

Parents within the uninvolved parenting style group demonstrated higher levels of stress than authoritarian, authoritative, or permissive parents. This finding is consistent with previous literature demonstrating links between uninvolved parenting style and stress (Jones Harden et al., 2014). Uninvolved parents have been found to lack family management skills and due to this have children with higher problem behaviors (Luyckx et al., 2011). Parents may feel more stress when parenting than others due to a lack of skills, and when this experience is combined with other life stressors, it can create a difficult home environment for both parent and child. Additionally, some parents may be uninvolved due to not being around their child frequently. For example, parents who share custody of their child or who work multiple jobs or night shifts may not have many

interactions with their child, and when they do may be too tired to show much warmth or positivity towards them.

Parenting Style and Child Problem Behaviors

Consistent with past literature, authoritative parents had children with fewer problem behaviors than children with authoritarian or uninvolved parents (e.g., Aminabadi & Farahani, 2008; Howenstein et al., 2015; Monaghan et al., 2012; Querido et al., 2002). This finding relative to authoritarian parents is not surprising. Previous research has demonstrated that the harsh and negative parenting present in the authoritarian parenting style is associated with externalizing behavior problems (Fletcher et al., 2008) and less cooperative behavior (Howenstein et al., 2015) in children as well as internalizing problems such as anxiety (Aminabadi et al., 2012; Rapee, 1997; Wood et al., 2003) and depression (Rapee, 1997). The finding that uninvolved parents had children with higher levels of problem behaviors is also congruent with past literature (e.g., Fletcher, 2008; Jones Harden et al., 2014). Uninvolved parents tend to have poorer family management skills (Luyckx et al., 2011) and have been found to utilize psychologically controlling (Kuppens & Ceulemans, 2019) and more punitive discipline strategies (Fletcher et al., 2008) with their children. These characteristics can lead to increased externalizing behavioral issues in children (Luyckx et al., 2011).

Interestingly, there was no statistically significant difference in child problem behaviors between authoritative and permissive parents in this sample. This could be due, in part, to the families in this sample being low risk and the children having low levels of problem behaviors based on both parent and teacher report. Considering the nature of this sample, it is possible that parents were more able to be permissive with their children

without experiencing significant behavioral issues as a consequence. As these parents were experiencing low to moderate levels of stress, it is also possible that families in general were more relaxed and better able to demonstrate warmth to their children. Additionally, while not statistically significant, authoritarian parents reported higher levels of child problem behaviors than permissive parents, which was in the expected direction. This may be due to the values differences inherent in these parenting styles. Authoritarian parents value children respecting their authority while permissive parents tend to have a less hierarchical relationship with their children (Baumrind, 1968, 1971). Therefore, certain child behaviors may be viewed as problematic by authoritarian parents that permissive parents view to be within an expected or non-problematic range. Therefore, while not statistically significant, this result is congruent with parenting literature as well as the values integral to these different parenting styles.

Parenting Styles and Child Behavioral and Learning Outcomes

The third research question was: Do parenting styles predict child behavioral and learning outcomes? The previous research question found that parenting styles were significantly associated with parent stress and child problem behaviors. Analyses here investigated further to understand whether parenting styles predicted teacher reports of the child's behavioral concerns, teacher reports of the child's academic competence, and the child's literacy benchmark score outcomes.

Teacher Reported Child Behavioral Problems

In the relationship between parenting styles and teacher reported child behavioral outcomes, the main finding was that uninvolved parents had children with higher behavioral concerns than children of permissive or authoritative parents. This is

consistent with previous literature demonstrating longer term problem behaviors in children with uninvolved parents (Jones Harden et al., 2014). Interestingly, there was no statistically significant difference in the behaviors of children with uninvolved and authoritarian parents, which is incongruent with previous literature. Additionally, while authoritative parents had children with lower teacher reported behavior concerns than uninvolved parents, there was no statistically significant relationship when compared to the other parenting styles. Interestingly, teachers reported slightly fewer problem behaviors with children of permissive parents compared to authoritative parents although this relationship was not statistically significant. Finally, teachers reported higher problem behaviors for children with authoritarian parents than with either authoritative or permissive ones, which was in the expected direction, however here there was also no statistically significant difference in the results between authoritarian and authoritative or permissive parents.

The limited statistically significant results in this analysis were not entirely surprising. There was little variability in reported problem behavior scores. Children's levels of problem behaviors in this sample, based on parent and teacher reports, were fairly low overall. Study findings may also be influenced by the young age of the children. Different patterns may be present in families with older children. As an example, parent self-report of positive parenting behaviors predicted lower problem behaviors in adolescents, such as school suspensions (Fleming et al., 2016). However, as this sample included kindergarten-aged children, it appears that these general education teachers had few concerns. Additionally, if teachers did have minor concerns, they may be less likely to report those concerns given the young age of the children.

Teacher Reported Child Academic Competence

The next analysis investigated whether parenting styles predicted teacher reported child academic competence. In this analysis, parenting styles did not significantly predict teacher reported student academic competence. This is not congruent with previous literature demonstrating that parental engagement in learning for young children has been associated with improvements in their child's academic, behavioral, and socioemotional wellbeing (Breiner, Ford, Gadsden, & National Academies of Sciences, 2016). Despite the lack of statistical significance in this analysis, there are a few interesting findings in the data. For one, uninvolved parents demonstrated lower levels of child academic competence than authoritarian, authoritative, or permissive parents, which is in the expected direction considering previous research. There was also a moderate effect size for mean difference between uninvolved and permissive parenting. The lack of statistically significant results could be due to a limited sample, as only 12.1% of participants fit within the parameters of an uninvolved parenting style. Additionally, permissive parents had children with higher levels of academic competence when compared to authoritarian and authoritative parents. This result is not congruent with previous literature demonstrating that authoritative parenting fosters the best academic outcomes in children (Majumder, 2016; Steinberg et al., 1992), however the effect sizes were small for these results indicating that the difference in outcomes was minimal. Finally, authoritarian parents had children with higher levels of academic competence than those of authoritative parents, and while this result is not congruent with previous literature, it was not statistically significant.

The measure utilized to gauge child academic competence was a 9-item measure asking about the children in comparison to other children in the classroom. As these children are very early on in their academics, it is possible that there was not enough of a discrepancy in child academic competence levels to yield a significant result. While there may be some variability in academic competence at this age, it is likely that there was not enough variability to link academics back to parenting styles. Additionally, it is important to note that there are many individuals that can influence the development of a child, as Bronfenbrenner (1979) highlighted in his ecological model. While parents play an important role in a young child's home life, their teachers play an important role in their experiences at school and contribute greatly to their overall development (Breiner et al., 2016). It is possible therefore that in this low-risk community sample of children, their experiences at school are distinct from their experiences at home, and that parenting styles carries less weight in their current school context. It is also possible that differences in parenting styles on academic competence will emerge when children are older and the academic demands placed on the children are higher. When children are older, homework and parent-supported learning at home become more necessary elements of academic achievement.

Child STAR Literacy Benchmark Scores

The final analysis investigated whether parenting styles predicted child benchmark literacy scores in spring of their kindergarten year. Once again, parenting styles did not predict child literacy scores. This result is also incongruent with past research demonstrating that parental involvement in their young child's learning is associated with improvements in early literacy (Breiner et al., 2016). Mean differences in

scores were not statistically significant, although they did reveal that uninvolved parents had children with lower literacy scores than those with authoritarian, authoritative, or permissive parents. Additionally, the mean difference between child literacy scores of children of uninvolved and permissive parents revealed a moderate effect size. Again, this result being non-significant could be due to the limited sample size within the uninvolved parenting group. While permissive parents demonstrated that they had children with higher literacy scores than authoritarian or authoritative parents, this result was not significant, and the effect sizes were small.

There was more variability in the sample for the STAR literacy scores, which is congruent with the nature of a standardized test. Because children are at this age are acquiring early literacy skills, children who may be later identified with a learning disability or other academic problem may not stand out as drastically in their academic performance at this early age. It would be more likely to detect significant differences in learning in later elementary school as well as wider variability in scores on standardized tests which could then be linked back to parenting styles. In other words, the discrepancy between children's academic functioning may be wider and more apparent at later ages, and these differences may be more easily linked back to what is happening in the home and in the parent-child relationship. Parenting characteristics such as education have been associated with parental involvement and child's academic achievement (Davis-Kean, 2005); however, seeing these links with a community sample of kindergarteners may be more difficult. Therefore, it may be too soon to be able to see differences in academic competence and achievement scores with this type of community sample.

Again, there are many things that can influence academic outcomes for children, most notably the proximal influence of the school environment and teachers (Breiner et al., 2016). Children in this sample were all receiving similar educational experiences in that they attended five different schools within the same school district. Additionally, the majority of children in the sample were in general education and did not experience many academic difficulties. It is possible that due to the homogenous nature of their school experiences there was not enough variability to determine academic differences that could be linked back to the parenting context at home.

The third research question investigated overall differences in behavioral and academic concerns based on different parenting styles. The fourth and final research question sought to understand how these relationships varied when parent stress or educational background were added as moderator variables.

Parent Stress and Parent Education as Moderators

The fourth research question was: Are associations between parenting styles and child outcomes moderated by parent stress and parent education level? Two-way ANOVA's revealed the moderating relationships of parenting stress and parent education levels on the relationship between parenting styles and child behavioral and academic outcomes.

Teacher Reported Child Behavioral Problems

The relationship between parenting style and teacher reports of child behavioral problems in the classroom was significantly moderated by parent stress. Specifically, when parents had high levels of stress, there were significant differences in teacher reported child behavior problems with uninvolved parents when compared to children

with parents in any other style, with more negative child outcomes associated with uninvolved parents under conditions of high parenting stress. Therefore, as parent stress level increased, the difference in teacher reported behavioral concerns between parenting styles also increased. The result that parent stress moderated the relationship between uninvolved parenting style and child problem behaviors is consistent with previous literature. Uninvolved parenting has demonstrated the most problematic child development and higher levels of child externalizing behavior compared to any other parenting style (Fletcher et al., 2008). Additionally, child problem behavior may increase when uninvolved parents are experiencing higher levels of stress (Jones Harden et al., 2014). Although children already experience negative outcomes when they have uninvolved parents, these outcomes seem to be exacerbated when parents are also experiencing high levels of stress. This study demonstrated that children with uninvolved parents who were highly stressed had worse behaviors than other children in the sample, and that teachers rated these students' behaviors as more problematic than other students' behavior.

The result that parent stress does not moderate the differences in behavior problems between authoritarian, authoritative, and permissive parenting styles is not congruent with previous research. Parents with higher levels of stress have been found to engage in authoritarian and permissive parenting styles (Hutchison et al., 2016), both of which have been found to have associations with negative child behaviors (Baumrind & Mccandless, 1971; Rapee, 1997). As research has consistently demonstrated the best behavioral outcomes in children with authoritative parents (Howenstein et al., 2015), it is surprising that the current study found no differences between these three styles. It is

possible that due to the generally low to moderate levels of stress within the sample, there was limited variability and low power to detect differential effects on the children. Additionally, teachers generally reported low levels of child problem behaviors in the classroom. Overall, there was limited variability in parenting stress as well as child problem behaviors as this was a community sample with low clinical risk. Therefore, while these results are not congruent with previous literature, it is possible that results would have been consistent with past findings had the current study had more clinical levels of risk or problem behaviors. It is important to note that when parents had average levels of stress there were no drastic differences in teacher report of child behavior problems. Again, as there was limited variability in stress levels among parents in the sample, it is not surprising that there were no statistically significant differences. As higher parent stress levels tend to push parents into using less effective parenting styles (Hutchison et al., 2016), it is possible that lower stress levels provide parents with enough cognitive resources to respond more effectively to their children.

Notably, the relationship between parenting style and teacher reports of child behavioral problems in the classroom was not moderated by parent education level. This is not congruent with previous literature that has demonstrated links between parent education level and behavioral outcomes for children (Carr & Pike, 2012). Again, as teachers reported generally low levels of child behavioral problems for this sample, it is possible that there was not sufficient variability in scores to detect behavioral differences based on parent education level. Additionally, the majority of the sample had a high school diploma or GED and had completed some college, and therefore there was limited variability in parent education levels.

Teacher Reported Child Academic Competence

The relationship between parenting style and teacher report of child academic competence did not vary by parenting stress. Current research has demonstrated that parents with higher levels of stress tend to use more controlling parenting strategies around child's academics, while parents experiencing lower levels of stress tend to engage in more supportive parenting styles (Rogers et al., 2009). However, the moderating relationship between parenting stress on child academic competence has limited evidence, and one purpose of this study was to gain a better understanding of this relationship. There are clear connections between parenting style and parent stress levels (Hutchinson et al., 2016); however, in this study parenting stress did not significantly moderate the relationship between parenting style and child academic outcomes. It is possible that parenting stress tends to be more important as an indicator of child problem behaviors and in this way more indirectly influences child academic outcomes. While parenting stress has previously been found to mediate the association between history of childhood adversity and children's academic functioning (Tan, Wang, & Ruggerio, 2017), the children in this sample are low-risk and have not experienced significant previous adversity. Therefore, it is possible that the nature of this sample did not demonstrate high enough risk for there to be a significant moderating effect of parent stress. Parent stress has also been found to influence mother's perceptions of their child's problem behaviors (De Los Reyes & Kazdin, 2006), however less is known about what influences teachers' perceptions. The questionnaire that teachers completed to rate academic competence for children in the sample involved comparing them to other children in their classroom. As the teacher's focus was on a comparison of one child to

other students, it is possible that the influence of parent stress levels and their parenting style was not as apparent (Reed & Osborne, 2013).

The relationship between parenting style and teacher reports of child academic competence in the classroom was significantly moderated by parent educational background. Specifically, when permissive parents had some college education or more, teachers reported higher child academic competence scores, although this relationship was not significant for any other parenting style. The result that parent education level moderated the relationship between permissive parenting style and child academic competence is somewhat congruent with previous research. For example, maternal education attainment has been found to be related to child educational achievement, and mothers with higher levels of education have been more likely to provide effective scaffolding support to their children (Davis-Kean, 2005; Carr & Pike, 2012). Additionally, the high level of warmth and responsiveness characteristic of permissive parenting style has been found to have positive correlations with child creativity (Miller et al., 2012). However, permissive parenting has also previously been associated with negative academic outcomes for students and less effective academic attitudes (Assadi et al., 2007; Waterman & Lefkowitz, 2017). As this sample of children is very early in their academic career, it is possible that more highly educated parents with a warm and responsive attitude that supports child creativity fosters academic competence in their children in this context. Alternatively, a higher parent education level may serve as a protective factor that supports their child's academic competence despite their permissive parenting style. It may be more likely that educated parents have home environments that promote learning and cognitive stimulation (e.g., more books in the home, parents having

a wider vocabulary). The vocabulary that parents use while parenting has been associated with the social and economic status of the family as well as the child later IQ (Hart & Risley, 1992). Parent education has also been positively associated with child executive functioning above and beyond parent income and other family demographic characteristics (Conway, Waldfogel, & Wang, 2018). Therefore, it is possible that parent education level may in some cases be positively related to child academic competence irrespective of the parent-child relationship.

The result that parent education level does not moderate the relationship between authoritarian, authoritative, and uninvolved parenting styles and child academic competence is not congruent with previous research. As teachers generally reported high levels of academic competence among this sample of children, it is possible that there was not enough variability in responses to determine differences in academic functioning based on parenting style. The fact that this study included a low-risk community sample also potentially reduced the ability to detect differences in child competence outcomes based on these three parenting styles. As teachers were comparing study children to other children in the classroom to measure this variable, it is possible that this questionnaire was more removed from what might be happening in the home environment.

Child STAR Literacy Benchmark Scores

The relationship between parenting style and child STAR literacy benchmark scores did not vary by parenting stress. Again, there is less research demonstrating the moderating effect of parenting stress between parenting style and child literacy benchmark scores. As parental stress was generally low in this sample, it is not surprising that there was no moderation effect with their children's benchmark literacy scores.

Additionally, the relationship between parenting style and child STAR literacy benchmark scores did not vary by parent educational background. This result was not consistent with previous literature and was a more surprising result than for parenting stress. There are fewer associations between parenting styles and child outcomes the farther removed the data is from a parent's experiences. Teacher reports are still subject to bias, and the relationship that a teacher has with a parent can influence their responding. Additionally, parent reports include the parent's perspective of their parenting, home life, and experiences with their child. A direct assessment of child's early literacy is going to be more removed from both parent and teacher report and will not be as subjective as parent report. The STAR assessment data is therefore subject to less reporter bias but may be subject to other factors influencing the validity of the data (e.g., test conditions). In the present study the sample size was smaller for STAR assessment data given missing data, which may have affected the power to detect significant differences by parenting styles.

Implications

The outcomes of this study have a number of significant implications for research, intervention, and practice. For one, the exploratory nature of this study involved understanding whether different parenting styles were present in this sample as well as gaining insight into the impact of these parenting styles on their children's behavioral and learning outcomes. This study demonstrated the feasibility of creating parenting style groups based on parent reported parenting behaviors that were designed to align with the conceptualization of the parenting styles discussed in the literature. Not only was the approach taken in the current study feasible, there is some support for these styles

aligning with many of the results discussed in prior research. This was especially true regarding the negative impacts of uninvolved parenting practices on children.

Second, this study adds to the growing body of literature demonstrating links between parent mental health, parent contextual factors, and child behavioral outcomes. Learning about the presence and impact of these parenting styles can therefore help inform intervention development for parents. Considering that parent self-esteem and beliefs about their own ability to manage their children are associated with a more balanced (i.e., authoritative) parenting style and lower parental stress (Aunola et al., 1999; Bloomfield & Kendall, 2012), it is clear that interventions should target parent self-efficacy and levels of parenting stress. There is evidence that parent training has a number of significant benefits. Parent training has been found to help reduce stress associated with parenting and create a parenting style that is balanced by providing discipline as well as positive reinforcement, and should focus on parenting confidence and child rearing abilities (Greeno et al., 2016). In fact, families experiencing higher levels of stress have been found to benefit more from parenting intervention than parents with less stress (Stormshak et al., 2019). The benefits of parenting interventions focused on positive parenting strategies is well documented and has been associated with decreases in interparental conflict 12 months after intervention (Sullivan, Parent, Forehand, & Compas, 2018). Parenting interventions focused on mindfulness can also be beneficial for families as mindful parenting is associated with parent self-compassion and lower levels of parenting stress, as well as higher levels of authoritative parenting and lower levels of authoritarian and permissive parenting practices (Gouveia et al., 2016). Interventions that focus on reducing inconsistency and rigidity in parenting practices

would also be beneficial as harsh, inconsistent, or rigid parenting can lead to coercive parent-child interactions (Lunkenheimer, Lichtwarck-Aschoff, Hollenstein, Kemp, & Granic, 2016). Additionally, positive parenting intervention programs have been found to have improvements in child behavioral and learning outcomes, including neural systems, attention, language, and behavior for preschool-aged children (Neville et al., 2013).

Third, this study highlights the importance of understanding a family's contextual factors when evaluating the impact of parenting styles and the interventions and clinical work that may follow. Research has demonstrated that targeting parenting stress and parenting behaviors in interventions for families is particularly important if they are experiencing difficult contextual factors such as economic instability (Puff & Renk, 2014). Practitioners and researchers also need to think about parenting styles in the context of the family culture and background. As family culture and different parenting styles can have differential implications for child outcomes (Sorkhabi, 2005) it is important to recognize that results may look different depending on the family cultural context. It is possible that different types of interventions may be beneficial for parents with different parental styles and teasing apart these differences may help practitioners and interventionists be more targeted to the specific needs of parents with different parenting styles.

Limitations

While this study yields some interesting findings, there are several important limitations. Regarding the data, this study was cross-sectional and did not involve longitudinal data. When analyzing the associations and impact of the different parenting styles, it must be understood that they represent relationships during one period of time

and cannot determine whether these outcomes may continue longer. Therefore, there is no way to establish temporal precedence of the results. Additionally, causality cannot be inferred as utilizing cross-sectional data means that the effects may be reciprocal or bi-directional. The directionality of the effects could be such that the child behavior may be driving parenting or vice versa, and it is likely that this relationship is transactional in nature.

There was limited variability in parent and child demographic characteristics, which limited the ability to test additional moderator effects. While there was some racial and ethnic diversity in this sample, it was fairly limited as parents were primarily white. There is mixed research regarding the use of Baumrind's (1968) parenting styles with diverse populations, and while researchers have found different outcomes for children for parents of different cultural backgrounds (Heberle et al., 2015; Sorkhabi, 2005), parent race/ethnicity was not tested as a moderator in the analyses for this study due to the limited diversity of the sample. More racial and ethnic diversity in this sample may have provided more nuanced information about parenting style outcomes. An additional limitation was that parent sex was not tested as a moderator. This is again due to limited variability as the majority of parent participants were female.

There was no direct measure capturing or identifying parenting styles among parents in the study. Cut scores were created to form parenting styles based on Baumrind's (1968) and Maccoby and Martin's (1983) definitions; however, not all parents cleanly fell into just one parenting style. Therefore, a hierarchy was created to best sort parents into parenting style categories. While the cut scores and hierarchy were based on evidence from the literature, relying solely on self-reported parenting behavior

creates a limitation. Despite this, it is important to note that many results in the study were congruent with previous research on differential outcomes based on parenting styles, which provided some validation of study methods.

The study data were primarily based on parent- and teacher-report of child behavior. It has been suggested that parent report of child behaviors can be influenced by mental health issues such as stress (De Los Reyes & Kazdin, 2006). Here, parents may be more likely to report positively about their parenting behaviors and under report negative dynamics with their child. Additionally, parents may, and likely do, have different definitions for what might be considered problematic behaviors with children. Different parents will have different views about what relationship dynamics are challenging and which are not, as well as which behaviors in their children they believe need to be addressed. Teachers may also be less likely to report on problematic behaviors as the children in the sample were very young and early in their academic career. Therefore, it is important to recognize that the data stems from self-reports of child behavior and may be reported differently than that of a clinician.

There were additional limitations regarding the methods of this project. For one, there were multiple analyses that needed to be conducted, particularly for research question four. These many analyses can increase the likelihood of Type I error. Using a correction, such as a Bonferroni correction, would provide a more conservative test of significance, however this was not done given the limited statistical power associated with comparisons between parenting styles with relatively small group sizes. Second, as there were few parents that represented the uninvolved parenting group (12.1%), the results should be considered specific to this sample and may not generalize. That being

said, results for uninvolved parents were apparent across parent and teacher reports of child behavior, which increases the validity of these results. Third, the categorization of parents within their respective parenting styles was based on parent reported behaviors within a non-clinical sample. This sample was overall low risk with low levels of problem behaviors for children and stress levels for parents. It is important to note that conducting these analyses with a high-risk sample may provide different results and categorizations of parenting style groups. Finally, there was less teacher data than there was parent data as teachers did not all complete questionnaires about the children participating in the study. The results of teacher data therefore may not be as representative of children's behaviors and academic competence as it may have been with complete teacher data.

Future Directions

There are a number of important future directions that can be taken to further understand parenting styles and parent-child relationships. First, future research should further investigate different parenting styles and the impact they have on teacher reported child behavior and academics as children grow older. Previous research has demonstrated problematic outcomes for children when their parents have different styles of parenting (Tavassolie, Dudding, Madigan, Thorvardarson, & Winsler, 2016). Research has also demonstrated associations between interparental conflict and depression in children (O'Donnell, Moreau, Cardemil, & Pollastri, 2010; Sullivan et al., 2018), and that increases in positive parenting strategies is associated with decreases in this conflict (Sullivan et al., 2018). Future research can continue to investigate these relationships. It is additionally important for future research to understand how parenting styles and

parent-child relationships may differ when children have same sex parents. To date there is limited research on parenting styles and practices for parents in same sex relationships and having a better understanding of these family systems could allow for more inclusive clinical work and intervention programs (Schofield, 2006).

Second, future research should focus more concretely on father's parenting styles and roles in their child's lives. To date there is limited research and underrepresentation of the role and impact of fathers (Colalillo & Johnston, 2016; Breiner et al., 2016; Lopez, McWhirter, Rosencrans, Giuliani, & McIntyre, 2019). Some research has found that young children with fathers who are involved and nurturing develop better linguistic and cognitive skills, have better academic readiness, and have better connections with peers over time (Breiner et al., 2016). Understanding their potentially unique role in parenting and the impact they may have on their child's behavioral and academic outcomes is a much-needed area of future study.

Finally, future research must continue to look at parenting interventions that take parent cultural background into account. Culture plays an important role in parenting practices and can have differential impacts on child outcomes depending on the family cultural context (Barker, Cook, & Borrego, 2010; Sorkhabi, 2005;). As previously discussed, parenting styles that have negative outcomes for children in one group (e.g., individualistic, European-American cultures) do not always have the same negative outcomes for children among other groups (e.g., collectivistic, African American or Black cultures). While there have been some similar trends in the impact of parenting styles among different cultural groups, future research should continue to work to

understand effective parenting interventions for families among different cultural groups (Odubote, 2008; Pinquart & Kauser, 2018; Sorkhabi, 2005).

Conclusion

The current study sought to understand the presence of Baumrind's (1968) and Martin and Maccoby's (1983) authoritarian, authoritative, permissive, and uninvolved parenting styles in a sample of parents and their kindergarten-aged children in a state in the Pacific Northwestern region of the United States, and found that parenting style was significantly associated with parenting stress and child problem behaviors, but no other parenting characteristics. This study additionally sought to clarify the relationship between parenting styles and child behavioral and academic outcomes, as reported by the children's kindergarten teachers. Uninvolved parenting style was the only style found to predict higher teacher reported child problem behaviors in the classroom. Parenting style was not found to predict teacher reported child academic competence nor the children's STAR literacy benchmark scores in spring of their kindergarten year. Regarding the potential moderating effects of parent stress or education on parenting styles and teacher reported child behavioral and academic outcomes, parent stress did moderate the relationship between uninvolved parenting style and teacher reports such that uninvolved parents with high stress levels had children with higher teacher reported behavioral problems. In addition, parent education moderated the relationship between parenting style and teacher reports for parents with some college or greater education, such that permissive parents with a higher education level had children with higher levels of academic competence. Neither parent stress nor parent education level moderated the relationship between parenting styles and child STAR literacy data benchmark scores. In

sum, this study added to the literature by demonstrating important associations and impacts of parenting styles on child behavioral and learning outcomes that will be highly useful for practitioners and in guiding future research.

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