ABSTRACT

PARENTAL ATTITUDE AS A PREDICTOR OF SCHOOL ACHIEVEMENT AMONG AN ETHNICALLY DIVERSE SAMPLE LIVING IN POVERTY

by Neelum Amin

A large and growing body of literature examines factors that promote academic achievement in children. Apart from direct parental involvement, parental attitudes and dispositions, such as parental optimism, have been found to influence youth development. Using a correlational research design, this study examined (a) the relationship of parental optimism and students’ academic achievement within a sample of U.S. families living in poverty \((n=1500)\), and (b) the possible roles of gender and ethnic/cultural group membership in moderating this relationship. The Life Orientation Test-Revised (Scheier et al., 1994) measured parental optimism and the Woodcock-Johnson Tests of Achievement Brief Battery (Woodcock et al., 2007) measured student academic achievement. Results of regression analyses revealed that parental optimism did not predict achievement for the overall sample. Parental optimism did significantly predict achievement in individuals from a Hispanic background, although this relationship was no longer statistically significant once the influence of parental homework involvement was considered.
PARENTAL ATTITUDE AS A PREDICTOR OF SCHOOL ACHIEVEMENT AMONG AN ETHNICALLY DIVERSE SAMPLE LIVING IN POVERTY

A Thesis

Submitted to the
Faculty of Miami University
in partial fulfillment of
the requirements of the degree of
Educational Specialist
Department of Educational Psychology

by
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2016

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Acknowledgements

My deepest gratitude for Dr. Kevin Bush, my thesis advisor, for his commitment, support, and encouragement throughout this grand project. I would also like to thank my wonderful thesis committee, Dr. Amity Noltemeyer and Dr. Anthony James, for their guidance and constant feedback throughout this process. My committee provided me with the opportunity to be a part of a team with them; an honor which I will never forget. Thank you to my committee and the entire educational psychology department faculty at Miami University for their dedication to supporting students evolve into scholars, practitioners, and leaders. I would like to thank my graduate assistantship supervisor, Dr. Tammy Schwartz, for challenging me and challenging others to be advocates for the things we believe in. And lastly, I would like to thank my family and friends for providing their endless support in all aspects of my life and to my late father for his indirect ability to drive me to pursue all my goals in life and hold true to my values.
Introduction

According to an analysis of high school graduation rates conducted by the National Center for Educational Statistics (2014), the United States was at an all-time high of 81% graduation rate in 2012. While we should celebrate the overall upward trend of the country, it is important to realize that many disparities still exist with achievement and graduation rates of minorities and students from low-income areas. More specifically, Hispanic students had a graduation rate of 76% and both Black students and American Indian/Alaska Native students had the lowest rate of 68% (NCES, 2015). Although high school graduation rate is a singular measure of school success, research shows that high school graduates experience improved overall life outcomes compared to those who have not graduated high school or college (Baum, Ma, & Payea, 2013).

Several life outcomes are a result of attaining a higher education beyond high school, such as higher earnings, healthier lifestyles, and more positive behavior patterns (Baum et al., 2013). However, completing only high school is associated with greater incomes and occupational status, compared to not completing high school (Fogg, Harrington, & Khatiwada, 2009; Zeng-yin & Kaplan, 2003). A large and growing body of literature continues to examine factors that promote academic achievement in children, and what can help facilitate students to have the best lives possible. Nevertheless, there are many different influences that impact an individual’s academic achievement, in both positive and negatives ways. These factors include socioeconomic status, teacher preparation, teacher experience, hunger, and so forth (Barton & Coley, 2009; Fan & Chen, 2001). When understanding influential factors within an ecological context, cultural influence can also lead to different child outcomes (Johnson, Jaeger, Randolph, Cauce, & Ward, 2003; Kotchick & Forehand, 2002). Overall, conceptualizing academic achievement within this ecological framework is one way to understand an individual embedded within a larger system. According to ecological systems theory, an individual is most influenced by the settings within the microsystem, which include contexts such as family, school, neighborhood, and peers (Bronfenbrenner, 2005). Of additional importance is the mesosystem, which is when different settings within the microsystem begin to interact, for example the relationship between the individual and adults within the home (Bronfenbrenner, 2005). This theory highlights the significance of understanding an individual within a larger, interconnected context.

Among this wide array of influences on achievement are the experiences that are imparted unto youth by their parents or guardians. Gender, without a doubt, impacts a child’s development, starting as early as infancy (Leman & Tenenbaum, 2011). Through socialization, children begin to understand societal norms and ways of acting and behaving. One context where socialization occurs is within the family. Male and female children are often treated differently by their parents, or they at least perceive being treated differently by their parents (Plomin & Daniels, 2011). Various factors such as fewer resources and enrichment opportunities (Donnellan, Martin, Conger, & Conger, 2013), unpredictable parenting styles (Areepattamannil, 2010), and increased exposure to neighborhood violence (Leventhal, 2000) have also been identified as contributors to lower student academic achievement in high poverty areas (Watkins, 2015). Also, a student’s family background, such as socioeconomic status and family structure, is well recognized as the most powerful contributor to the student’s success in school (Rumberger, 1995). One can easily assume that this is most likely due to the large amount of
time a child spends with his or her family. However, there are also ways that parents and guardians are able to take an active role in influencing the academic achievement of their children.

In a recent meta-analysis conducted by Fan and Chen (2013), a meaningful relationship emerged between parental involvement and students’ academic achievement. Although these researchers documented a relationship between the two variables, one important limitation was the definition of parental involvement. Fan and Chen (2013) noted that the inconsistencies in the definition may be one possible explanation for the range of findings on studies of parental involvement and student academic achievement. In their meta-analysis, parental involvement was defined by four dimensions: educational expectation/aspiration for children, communication with children about school-related matters, parental supervision/home structure, and parental participation in school activities. This definition need not only include physical involvements, such as presence, time, and resources, but it may also include factors such as attitudes and perceptions, more specifically parental disposition. One can easily call to mind the caricature of a highly involved and demanding parent who can be emotionally distant and alienates his or her child.

Besides direct parental involvement, parental attitudes and dispositions have also been found to influence child and adolescent development (Bush & Peterson, 2013). For example, parents who are optimistic (compared to pessimistic) are more likely to have quality parent-child relationships, effective parenting, and children who are socially competent (Heinonen et al., 2006). Parental optimism is described as a parent showing greater persistence in dealing with difficult life events because he or she has, or anticipates having, the necessary coping skills to deal with life stressors (Pratt, Norris, van de Hoef, & Arnold, 2001). This study specifically focuses on the role of parental optimism on a student’s academic achievement within a sample of families living in poverty, and the possible roles of gender and ethnic/cultural group membership in moderating this relationship.

**Literature Review**

**Academic Achievement**

Controversy exists regarding what constitutes student academic achievement and how researchers define and operationalize the construct. Most previous studies fail to provide a specific definition of academic achievement, but rather operationalize academic achievement using a variety of variables to serve as a proxy for academic achievement, such as specific grades for a subject area, cumulative grade point average (GPA), scores on standardized tests such as ACT or SAT or specifically created individually-administered, norm-referenced achievement tests. In the U.S., states currently preside over the ability to create their own achievement tests or choose which test they would like to use. This lack of uniformity across states creates a multitude of ways for assessing academic achievement, and increases the difficulty of comparisons across content areas.

Researchers have considered two possible ways to classify these academic achievement variables. The first way of classifying the variables are using global indicators which are measurements of school GPA and educational attainment, and the second method is by using specific indicators which are measured by tests in one academic area (Fan & Chen, 2001). As discussed by Fan et al. (2001), standardized test scores, and other global indicators (e.g., grade point average) are more reliable predictors of student academic achievement because they are considered composite scores and more psychometrically sound. This is because individual items
(e.g., individual course grade or a single subtest score on a standardized test) are most heavily affected by measurement error. Therefore, when more and more individual items are aggregated to form a composite, the effect of the error is reduced (Kranzler & Floyd, 2013). Thus, total measurement error decreases as one moves from an individual item within a subtest, to a subtest composite score, and even more to the composite score of the entire standardized test (Kranzler et al., 2013).

Research has addressed standardized tests not being reliable assessment of achievement due to bias in instruments, professionals, practice and language (Marbley, Bonner, & Berg, 2008). However, studies that have been conducted on testing bias have had little results indicating evidence to support such biases (Kranzler & Floyd, 2013; Warne, Yoon, & Price, 2014). Furthermore, scholars have also examined the validity and reliability of measures of academic achievement (Kranzler et al., 2013). It is important, when assessing whether or not to choose a specific academic achievement test, that the test validity and reliability are checked. Issues of internal consistency, test-retest reliability, and scorer consistency should be measured to gain an accurate test reliability score (Kranzler et al., 2013). In addition, issues of content, criterions-related, and construct validity, should be measured to gain an accurate test validity score (Kranzler et al., 2013).

Despite the research base on reliability and validity of global indicators, researchers may still be inclined to use individual student grades in a particular subject as an indicator of academic achievement. That being said, Allen (2005) stated that individual student grades in schools, one type of specific indicator, are often considered invalid due to three major reasons: 1) what a teacher perceives as academic achievement is subjective and varies from teacher to teacher, 2) teachers often communicate an assortment of information about the student that is not related to achievement, and 3) teachers are not typically assigning grades from a universal criterion of measurement (Allen, 2005). Thus, the literature mentioned above demonstrates that using global indicators of achievement, such as standardized tests, may be a more reliable and valid way to measure student academic achievement. For the scope of this study, academic achievement is defined using The Woodcock Johnson III Test of Achievement Brief Battery (Woodcock, McGrew, & Mather, 2001; 2007) composite achievement score, which is considered a global indicator of academic achievement.

**Factors Impacting Academic Achievement**

As previously mentioned, extensive research has focused on what factors promote learning and facilitate academic achievement in children (Barton & Coley, 2009; Blevins, 2009; Lucio, Rapp-Paglicci, & Rowe, 2011). Barton et al. (2009), in a report on the academic achievement gap, identified 16 factors affecting cognitive development and academic achievement. These factors were best classified into three main clusters: factors that are present before and beyond school, school factors, and factors related to the home and school connection (Barton et al., 2009). Together, these three clusters circumscribe the factors that have the most influence on academic achievement.

The first cluster identified by Barton et al. (2009) are factors that come before schooling and persist throughout an individual’s life. Examples of these factors would include low birth weight or environmental hazards. The next cluster factored around the school, such as curriculum rigor and teacher preparation (Barton et al., 2009). The final cluster regards the factor of parent participation, which connects home and school together (Barton et al., 2009). Whereas the outcomes of this synthesis report outlined multiple factors, it is important to note
that there was only one factor listed in the “Home and School Connection” cluster: parental participation. Although the evidence of parental participation as a factor is not in question, there is research to indicate that parental influences apart from participation also affect academic achievement (Galindo & Sheldon, 2012; Strayhorn, 2010). One factor worthy of further study is parental attitudes, for which there is some preliminary evidence to suggest positive effects on children’s academic outcomes (Bush & Peterson, 2013; Goforth, Noltemeyer, Patton, Bush, & Bergen, 2014). This illustrates the need to further explore parental influences beyond involvement, such as parental attitudes, as factors impacting children’s academic achievement.

Parenting Behaviors

An extensive body of literature exists on the various parental behaviors that influence academic achievement (Hill & Tyson, 2009; W. Jeynes, 2012; W. H. Jeynes, 2007). In a 2010 report, Blazer and Romanik indicated that parental behaviors and parenting styles either supported or hindered children’s educational, as well as social and emotional development. Parental behaviors that impact academic achievement include parental support, monitoring, punitiveness, and homework help. Some parental behaviors have a positive effect on academic achievement, including parental support, such that when the relationship between a parent and a child is warm and supportive, a child is more likely to seek guidance and assistance from their parent, even in areas of academics (Cooper & Crosnoe, 2007; LaRocque, Kleiman, & Darling, 2011; Wilder, 2014). Furthermore, parental monitoring has also been linked with higher school achievement in students, when it is related to parents checking on homework completion and keeping up with their child’s grades (Clark, 1993).

Other research findings discuss parental behaviors that have a negative impact a student’s achievement. Punitive parenting is characterized by using strict tone of voice, punishment, and a harsh demand for things to be done and inhibits academic achievement as well as other competent outcomes (Bush & Peterson, 2013). On the flip side of punitive parenting is parental granting of autonomy, which involves encouraging independence when it comes to making decisions and providing opportunities for the child to problem solve (Grolnick & Ryan, 1989). Research classifies parental granting of autonomy as a form of parenting that promotes academic achievement, whereas parental punitiveness serves as a negative indicator (Grolnick & Ryan, 1989; Liew, Kwok, Chang, Chang, & Yeh, 2014).

In a research study conducted on parental granting of autonomy during adolescence, females were granted less autonomy compared to their male siblings (Bumpus, Crouter, & McHale, 2001). Similarly, in a meta-analysis conducted by Leaper et al. (1998), mothers used more verbal support with their daughters compared to their sons. These and similar findings suggest that gender of children have implications for the way they are treated by parents, which can lead to different outcomes.

In addition to gender differences of parenting influences on child and adolescent outcomes, it is evident that parenting behaviors also can vary across different ethnic and cultural groups. Moreover, this difference is likely to be a factor that contributes to the discrepancy in academic achievement between various ethnic and cultural groups. A study conducted on 608 parents of different ethnic backgrounds (N= 96 African American, 117 Hispanic, and 395 European American) assessed a variety of parenting behaviors, including support, engagement, hostility, and scaffolding (Bae, Hopkins, Gouze, & Lavigne, 2014). Children of these parents were rated on areas of social competence, more specifically, assertion, child agency, cooperation, responsibility and self-control (Bae et al., 2014). Three findings across ethnic and cultural groups emerged: (1) higher levels of scaffolding within African American families, but not European
American families, related to higher reading and mathematics scores, (2) hostility was related to lower reading scores in European American children, but not for Hispanic children, and (3) support was related to higher levels of responsibility in African American and European American children (Bae et al., 2014).

Literature on parenting behaviors has outlined a few differences between different ethnic and cultural groups, while controlling for socioeconomic status. For example, African American, Asian American, and Latino parents all had higher levels of monitoring, compared to European Americans (Chao & Kanatsu, 2008). Furthermore, compared to Asian Americans and African Americans, European Americans had higher scores of parental warmth (Chao & Kanatsu, 2008). Relationships between parenting and child outcomes have also been found to vary across ethnic/cultural groups. These results shed light on the idea that as the United States educational system steadily becomes diversified, it is important to examine closely the potential differential impact of parenting behaviors among different ethnic and cultural groups, rather than promoting one universal parenting style or set of behaviors as the most effective for all. Additionally, most literature to date focuses on comparing only two different ethnic groups across parenting behaviors. Whereas it is beneficial to compare two ethnic groups, obtaining data on a larger array of ethnic and cultural groups will help increase knowledge on how specific parenting behaviors differ, especially in the context of the diverse set of ethnic and cultural groups currently in the United States.

With regards to gender and academic achievement, in a research study conducted by The U.S Department of Education, National Center for Education Statistics (2012), parents had a higher academic expectation for females, as opposed to males. Close to 75% of parents of females in 2007 reported expecting their child to obtain a bachelor’s degree or higher, compared to 66% of parents of males ("Parental Expectations for Their Children’s Academic Attainment," 2012). These data highlight the idea that parental thoughts and perceptions can differ by student gender. However, literature in this area is inconsistent. Heinonen and colleagues (2006) examined the relationships between parental optimism and children’s outcomes and found that the results were not significantly moderated by child gender. However, they did report patterns of interactions in which parental optimism and pessimism had strong associations with externalizing behaviors in males, compared to females (Heinonen et al., 2006). Considering the conflicting findings regarding the role of gender, this study aims to extend previous research through examining the moderating role of child gender in the relationship between parental optimism and children’s academic achievement within a culturally diverse sample.

As mentioned earlier, the meta-analysis completed by Fan & Chen (2001) sought to synthesize the quantitative literature surrounding the relationship between parental involvement and students’ academic achievement. Another significant finding to emerge from this study is that parental expectations for a child’s education achievement had the strongest relationship to academic achievement among the variables examined (Fan & Chen, 2001; Wilder, 2014). This reveals how parental thoughts and perceptions have a strong impact on academic achievement above and beyond direct parental practices, including supervision and participation in school activities. This is further supported by a recent research study that examined mathematics achievement using thirteen student and family factors as predictors (Goforth, Noltemeyer, Patton, Bush, & Bergen, 2014). Two of the predictors used were parent optimism and parent pessimism. Results indicated that parental pessimism was a significant negative predictor of mathematics performance (Goforth et al., 2014).
Parental Optimism

Research has shown that parental perception of how well their child will do in school is a significant factor in how well their students will achieve academically (McGrath & Repetti, 2000). Optimism is the feeling or belief that good things will happen in the future (Tetzner & Becker, 2015). On the other end of the spectrum is pessimism, which is defined as the feeling or belief that bad things will happen in the future. The concept of parental dispositional optimism-pessimism refers to a global trait-like expectation of future outcomes (Scheier, Carver, & Bridges, 1994). Therefore, optimists are more likely to expect that good things will come from all types of life situations. Furthermore, they have a greater feeling of persistence in their efforts. Pessimists are more likely to reduce efforts due to the thought that either something bad will occur or the potential positive outcome is not very likely (Scheier et al., 1994). As a result, when expanding upon the impact of expected and unexpected life situations, a parent’s disposition is critical.

Heinonen and colleagues (2006) asked 216 mothers and fathers to rate their generalized level of optimism and pessimism on life outcomes, as well as their child’s behaviors during infancy and middle childhood. More specifically, these behaviors included internalizing behavior, externalizing behavior, temperament, self-mastery, and social competence. Heinonen et al. (2006) reported that higher levels of parent optimism were related to more positive ratings of their child’s behavior. Specifically, parents with high levels of optimism rated their children with less internalizing and externalizing behaviors, as well as more socially competent and greater in self-mastery in middle childhood. Moreover, both social competence and self-mastery relate to academic achievement (Bush & Peterson, 2013). Similarly, a research study looked at Mexican-Origin families and how parents’ optimism influences parenting behaviors and child social competence. The analysis of the data disclosed two key findings: 1) mothers’ and fathers’ optimism were positively associated with the quality of positive parenting, and 2) positive parenting led to higher social competence in their children (Castro-Schilo et al., 2013). However, to date, there have been few studies conducted that directly examine how parental optimism relates to student academic achievement.

Purpose

To date, the research findings in the areas of parental involvement and parental attitudes towards their children have been inconsistent. There has been little research done that examines the relationship of parental disposition on children; furthermore, much of the research that has been conducted uses parental self-report of the outcome variable. Thus, more extensive research is needed. An important area of parental perceptions and thoughts are parents’ optimistic or pessimistic attitudes. This study will examine the relationship of parental optimism on students’ academic achievement directly, and in the context of parental involvement. Additionally, the potential moderating roles of child gender and ethnic/cultural group membership will also be examined.

Overall, the Life Orientation Test (LOT-R) (Scheier et al., 1994) will be used to measure the level of parental optimism, described on a spectrum of optimism to pessimism. The study will utilize LOT-R data that was collected as the pretest for the evaluation of the Butler County Success Program (BCSP). The Butler County Success Program was created to serve students from Kindergarten to twelfth grade, both female and male, whose families qualified for the
Temporary Aid to Needy Families (TANF) program. The BCSP is based in Butler County, which is located in the southwest region of Ohio.

The hypothesis and research questions guiding this study are:

1) Does parental optimism predict academic achievement in the context of parental involvement?
   a. Parental optimism will serve as a positive predictor of academic achievement, despite the inclusion of parental involvement.

2) Does gender of child moderate the relationship between parental optimism and academic achievement?
   a. There will be a difference in the relationship between parental optimism and academic achievement based on the gender of the child.

3) Does ethnic/cultural group membership (African American, Hispanic, and European American) moderate the relationship between parental optimism and academic achievement?
   a. There will be a difference in the relationship between parental optimism and academic achievement across African American, Hispanic, and European American ethnic/cultural group.

**Methods**

**Design**

The current study examined the relationship between parental optimism and students’ academic achievement using a correlational design. This approach is used to examine a relationship between two or more variables within one group. For this study, the criterion variable was identified as a student’s achievement and the predictor variable as the level of parental optimism. Furthermore, to assess whether parental optimism predicts in the context of parental involvement, a predictor variable for parental involvement was added (i.e., parental homework involvement). Since academic achievement can have multiple influences, most of which are difficult to control for, a correlational approach is much more feasible to examine the influence of parental optimism rather than an experimental design.

**Participants**

The population for the current study consisted of all students and guardians, who were enrolled in the Butler County Success Program (BCSP) during the 2011-2012 academic school year, \( n=1266 \) (female students = 643 and male students = 623). The analytic sample comprised of students from a range of different ethnic and cultural groups (European American= 691, Hispanic= 120, African American= 141, Multi-Ethnic= 141, and Asian= 13). The Asian subgroup was not used within the analysis due to the low sample size. The BCSP has 15 liaisons that work in 8 school districts, and in more than 40 participating schools in Butler County, Ohio. Teachers, counselors, liaisons, school psychologists, or any other school personnel refer children for the program, if they feel that a child’s basic needs are not being met. Families may also self-refer for the program. The liaison then works with families to meet basic, non-cognitive needs. These needs may include access to food, health care, childcare, transportation, or even financial services. The program goals include securing resources for the families on TANF, providing access to healthcare, and to coordinate basic need services for the families. Data were collected for the evaluation from children, teachers, parents, and school records, and collected via a pre
and posttest. Of that population, families who agreed to participate in the current study provided data. The study was approved by the IRB at Miami University.

Materials

The study utilized extant data collected from the BCSP pretest. The surveys included a portion of The Life Orientation Test-Revised (Scheier et al., 1994), to measure parental optimism and items from the Parental Behaviors Measure (Peterson, Bush, & Supple, 1999) to assess parental involvement. Additionally academic achievement data were collected via the Woodcock-Johnson Tests of Achievement III (Woodcock, Schrank, McGrew, & Mather, 2007).

The Life Orientation Test-Revised (LOT-R)

The LOT-R (Scheier et al., 1994) is a very brief measure, composed of six items and four filler items, that was developed to assess differences in optimism versus pessimism. The LOT-R items were added to the end of the survey given to participants in the program. Sample items from the survey include (Scheier et al., 1994), “In uncertain times I usually expect the best’, and “If something can go wrong for me, it will.” Participants answered the statements using a Likert scale of agree and disagree. There are no “cut-offs” for optimism or pessimism because it is used as a continuous dimension of variability (Scheier et al., 1994). Each item is scored from 0-4, with a possible total score ranging from 0-24. High optimism is indicated by a total score of 19-24, moderate optimism is indicated by a total score from 14-18, and low optimism is indicated from a total score of 0-13 (Scheier et al., 1994). The reliability of this variable, in the current sample, fell within an acceptable range (6 items; α =.87).

Woodcock-Johnson III Tests of Achievement Brief Battery

The Woodcock-Johnson III Tests of Achievement Brief Battery is a norm-referenced, individually-administered, achievement test that is shortened version of the Woodcock-Johnson Tests of Achievement (Woodcock et al., 2007). The brief battery is a comprehensive measure of academic achievement across three critical areas: Reading, Writing, and Math skills. This brief achievement test is designed for ages 2-90 and has been deemed to be a reliable and valid assessment (Woodcock et al., 2007). The reliability for all subtests and all ages range from .80 to .96 (Woodcock et al., 2007). Furthermore, it is individually administered in an easel like format, along with a test record and assessment worksheet. The assessment takes approximately 30 minutes to administer and special training is given to individuals who would be administering the assessment, however a license is not required to administer. The test was normed with a sample size of 8,782 participants that were randomly selected from 100 different geographic communities (Woodcock et al., 2007). The mean standard score is 100 and the standard deviation is 15.

Parental homework involvement

Surveys were given to families enrolled in the program and included questions relating to parenting behavior. There are seven items related to parenting behavior that were drawn from the Parenting Behaviors Measure (Peterson, Bush, & Supple, 1999), which measured two constructs, school parental involvement and parental homework involvement. Of the two constructs, parental homework involvement significantly predicted academic achievement in previous work (Lyman, 2014), and thus was chosen as a predictor variable for the current study. The parental homework involvement variable measures how involved parents are with their child in regards to their homework and is represented by an average score on four Likert scale items, given on the parent survey. Sample items from the survey include, “I enjoy helping [student’s
name] with his/her homework from school”, and “I always find out what homework [student’s name] is assigned in school each day.” The reliability of this variable, within the current sample, fell within an acceptable range (4 items; $\alpha = .76$).

**Procedures**

Participants were recruited from the families and students enrolled in the BCSP. BCSP liaisons explained the opportunity to participate in the data collection and related studies. Upon registration into the program, the legal guardian of the student enrolled in the program was given the parent survey. The parent was asked to complete the survey within one sitting, with the liaison alongside. It is important to note that families are enrolled into the program at any time throughout the academic school year. The specific data for this study, years 2011-2012, was pulled from the larger collection of data to be used for program evaluation purposes.

**Data Analysis**

To address the first research question, a hierarchical linear regression analysis was used to determine if parental optimism predicts student academic achievement. The predictor variable for this question was the level of parental optimism, measured by the mean LOT-R score. The criterion variable was the students’ academic achievement, specifically measured by The Woodcock Johnson III Test of Achievement Brief Battery composite achievement score, which is considered a global indicator of academic achievement. The null hypothesis states that the regression coefficient will be equal to 0. It is hypothesized that the greater the score on the LOT-R, the greater the student’s academic achievement test will be; thus, higher parental optimism will predict higher academic achievement. Second, optimism was hypothesized to predict academic achievement in the context of parental involvement, measured by a specific parental involvement behavior: parental homework involvement.

The second research question was assessed through creating interaction terms between a dummy variable representing gender and the predictor variable (parental optimism) to examine whether gender of child moderates the relationship. Similarly, the third research question was assessed through the creation of interaction terms using a dummy variable to assess the potential moderating role of ethnic/cultural group membership. The second and third research questions were posed as exploratory research questions given the general findings related to ethnic/cultural group membership and gender differences in academic achievement. At this time, there is not enough research related to the relationship between parental optimism and academic achievement to make specific hypothesis in regards to ethnic/cultural groups and gender.

The relevant assumptions for hierarchical linear regression analysis were checked. Hierarchical regression modeled involved a two-step process. The sequence of the entry included parental optimism in the first step, and adding parental homework involvement in the second step. Parental optimism and parental homework involvement were correlated ($r=.42$) fairly high within the Hispanic subsample. Thus, it is important to keep in mind issues of multicollinearity, the concept that when two or more predictors are correlated or account some of the same variance within a model, the amount of variance that each accounts for separately can be confounded. Multicollinearity is especially a concern when testing interactions. Therefore, to evaluate for the potential issue of multicollinearity between parental homework involvement and parental optimism, tolerance tests and the variance inflation factor were analyzed within the
hierarchical linear regression, and examination of the results indicated that these were all within normal ranges.

**Results**

Descriptive statistics were recorded for the variables, which included the mean, median, mode, standard deviations, and ranges (see Table 1). The mean achievement score for the sample was 92.68, which indicates that most students fell within the average range of achievement. The overall mean optimism score was 2.66 on a 4-point scale, indicating that parents mostly reported a moderate amount of optimism. The mean parental homework involvement score was 3.21 on a 4-point scale, indicating that parents reported that they were mostly involved in their child’s homework for school.

Table 1

<table>
<thead>
<tr>
<th>Descriptive Statistics of variables</th>
<th>N</th>
<th>Mean</th>
<th>Median</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief Academic Achievement</td>
<td>692</td>
<td>92.68</td>
<td>95.00</td>
<td>17.59</td>
</tr>
<tr>
<td>Optimism Sum Score</td>
<td>694</td>
<td>16.00</td>
<td>17.00</td>
<td>4.31</td>
</tr>
<tr>
<td>Parental Homework Involvement Mean Scores</td>
<td>713</td>
<td>3.21</td>
<td>3.00</td>
<td>.63</td>
</tr>
<tr>
<td>Parental Optimism Mean Scores</td>
<td>695</td>
<td>2.66</td>
<td>2.83</td>
<td>.72</td>
</tr>
</tbody>
</table>

The first research question examined whether parental optimism predicted student academic achievement. There was a non-significant correlation, $r=.001$, $n=539$, between optimism and academic achievement. Further analysis was done by means of the second and third research questions. The second research question asked if gender would moderate the relationship between parental optimism and academic achievement. The data indicated that the correlation between parental optimism and academic achievement of male students was not significant, $r=-.029$, $n=257$. Second, the data indicated that the correlation between parental optimism and academic achievement of female students was also not significant, $r=-.023$, $n=281$. The third research question asked if ethnic/cultural group membership would moderate the relationship between parental optimism and academic achievement. The data indicated that the correlation between parental optimism and academic achievement of Caucasian students was not significant; $r=-.003$, $n=286$. Second, the correlation between parental optimism and academic achievement of African American students was not significant; $r=.078$, $n=123$. Furthermore, the correlation between parental optimism and academic achievement of Multi-Ethnic students was also not significant; $r=-.053$, $n=68$. Finally, the data indicated that the correlation between
parental optimism and academic achievement of Hispanic students was significant, $r = .273$, $n=50$, $p<.05$, thus this relationship was examined further. Table 2 and Table 3 present the correlations between the variables.

In addition, hierarchical linear regression was conducted to analyze the relationship between parental optimism and academic achievement, as well as parental homework involvement within the subsample of Hispanic students (Table 4). This analysis was used to examine the potential relationship between parental optimism and academic achievement both with and without the influence of the parental homework involvement variable. Results of this analysis indicated that although parental optimism was a significant predictor of academic achievement in the first step, after parental involvement was added to the equation in the second step, the significance of the relationship between parental optimism and academic achievement of Hispanic students was no longer significant. Although academic achievement was significantly correlated at the zero order level with parental optimism ($r = .27$) as well as parental homework involvement ($r = .31$), a more complex relationship appears to be present as neither parental homework involvement nor parental optimism were significant when considered in the same equation. Considering the moderately strong significant relationship between the two predictor variables ($r = .42$), issues of multicollinearity seemed possible, however, examination of both tolerance tests and the variance inflation factor revealed acceptable ranges.

Table 2

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*Note. * $p<.05$

Table 3

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<th>β</th>
<th>B</th>
<th>SE B</th>
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\[ R^2 = .00 \]

\[ F = .38 \]

<table>
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\[ R^2 = .01 \]

\[ F = 2.53 \]

Note. * \( p < .05 \)
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*Note. *p*<.05
Discussion

The overarching hypothesis guiding this study predicted that parental optimism would serve as a positive predictor of academic achievement. Furthermore, the research questions asked whether gender and ethnic/cultural group membership would moderate the relationship between parental optimism and academic achievement. Results of the study indicated that for the overall sample, parental optimism does not significantly predict academic achievement. However, further analysis was completed to examine possible interactions in this relationship by gender and ethnic/cultural group, and the results indicated that parental optimism of individuals from a Hispanic background significantly contributed to student academic achievement. It is important to note that the relationship found for the Hispanic group was no longer statistically significant once the influence of parental homework achievement was considered. This ultimately suggests that global parental optimism (as measured here) does not influence academic achievement among Caucasian, African American or Multi-Ethnic groups; or within the context of parental involvement among Hispanics. The role of parental involvement suggests that global parental optimism might serve as more of an indirect predictor of academic achievement through parental homework involvement.

Literature in the field of academic achievement suggests that there are numerous different factors that influence how well a student will do in school and how these might vary across different cultural or gender groups. Parental optimism may have only had a small impact on the academic achievement because of the numerous other factors that contribute to achievement such as socioeconomic status (Shah, Atta, Qureshi, & Shah, 2012), curriculum rigor (Barton & Coley, 2009), resiliency (Connor & Slear, 2009; Martin & Marsh, 2009), parental education (Hannon, 2015), parental behaviors (W. H. Jeynes, 2007), and cultural values (Cupito, Stein, & Gonzalez, 2015). Thus, it is important to look at parental optimism in relation with these other influences, especially within the Hispanic subgroup, since in this case, parental optimism was correlated with student achievement.

Familism is one of the core values of Hispanic and Latino families (Knight et al., 2010). Familism is the idea of having filial, or family, obligation and understanding the importance of family and the perceived support from the family relationships (Knight et al., 2010; Stein et al., 2014). Stein et al. (2014) has conducted research about familism over the developmental span and concluded that familism is related with several positive outcomes among Hispanic youth, such as greater social competency and self-mastery. Thus, the current results might suggest that within the context of familism, parental optimism may play a more important role in children’s outcomes. This is consistent with previous research conducted on Mexican-Origin families and how parents’ optimism influences parenting behaviors and social competence (Castro-Schilo et al., 2013). This current research study directly examined how global parental optimism related to student academic achievement, and advocates for further exploration of the role parental optimism on academic achievement within a Hispanic population in the context of parental involvement. While the results were only significant for the Hispanic subsample without parental involvement in the equation, cultural values such as familism may be a possible explanation. Considering previous research findings on the differential role of parental influence on child outcomes by child gender, findings of the current study were consistent with past research. For example, Heinonen and Colleagues (2006) had reported parental optimism had a stronger, but not significant, relationship with externalizing behaviors in males, compared to female children. While the study by Heinonen and Colleagues (2006) examined gender differences across
children from 6 months to 5 years and was more related to child behavior outcomes, it is the only currently known study that examined a similar variable: parental optimism.

Optimism, defined and used within this study, was measured and related to general life outcomes on adverse events; rather than optimism related to child outcomes such as how well the child is perceived to do in school or socialization processes. A measure of optimism regarding parenting outcomes, parent-child relations or child outcomes (Ceballo, Maurizi, Suarez, & Aretakis, 2014) specifically would likely be more relevant to academic achievement or child outcomes in general. For example, research has shown that parental perception of how well their child will do in school is a significant factor in how well their students will achieve academically (McGrath & Repetti, 2000). While no such instrument exists yet to measure this more specific construct, it is important to consider what the current instrument is truly measuring.

Tetzner and Becker (2014) conducted a longitudinal study to examine the role of optimism for adolescents that were experiencing adjustments due to parental separation. Results of the study determined that the adolescents who were more optimistic, showed higher academic achievement (Tetzner & Becker, 2015). Although this study measured the level of dispositional optimism within adolescents and not parental optimism, the study highlights an overarching benefit of having higher levels of optimism. In addition, Tetzner and Becker (2014) expand upon the idea of optimism serving as a protective factor for individuals. Protective factors are defined as the support and resources that surround an individual or the attributes within a person that help people deal with stressful and aversive life events (Judge, 2013; Tetzner & Becker, 2015). In alignment with this current study, a supportive home environment and effective parenting, which includes high expectations for academic achievement (Fan & Chen, 2001; Watkins & Howard, 2015), is an external protective factor, especially for low-SES youth (Morales, 2010).

Limitations

Within this study, there are several limitations that may have influenced the results. First, as mentioned previously, the instrument being used to measure parental optimism was measuring an individual’s overall dispositional attitude. An instrument for parental optimism in relation to a child’s educational outcomes or socialization is warranted and may serve as a better indicator of how parental optimism relates to academic achievement in children. Second, the mean optimism level for the sample fell within the moderate range of optimism and the mean parental homework involvement level for the sample fell within the high range of support. Specifically, the sample was pulled from a community based program that was created to support families from a lower socio-economic status. These families were either in the process of receiving support from the program, or had already been in the program for one or more school years, both of which may have led to a heightened or elevated level of optimism and/or overall parental support.

Additionally, a limitation to consider is that the current study only used self-report of parental optimism level. The possible effect of this is that the parents might have inflated levels of optimism in the specific context that their support was given, which in this study was through the Butler County Success Program. Ultimately, this could create a halo effect, where the parents are answering more optimistically within a supportive environment. Thus, the fidelity of data collection is an important limitation to consider. The reasoning behind this is twofold. First, for the purposes of this study, it would have been good to get input from the community liaisons, students, and any other individual involved to provide a more holistic picture. Second, there always needs to be close monitoring done on gathering data. For this particular study, data collection was done by several different individuals, which increases the chance for error.
As mentioned earlier, it is important to check for issues of validity and reliability such as internal consistency, test-retest reliability, and scorer consistency (Kranzler et al., 2013). Data from the norming sample for the Woodcock-Johnson Tests of Achievement Brief Battery is available. However, data regarding the test-retest reliability and scorer consistency within this study is unavailable, which presents itself as a limitation. Lastly, lack of prior research in the area of parental optimism and academic achievement yields itself as a limitation. Considering the dearth of research to serve as a foundation, the findings from this research study can provide a great starting point and can serve as springboard for further research in this area.

Implications for practice

The primary implication for this study is that parental optimism aids in promoting academic achievement within Hispanic youth and that the relationship between parental optimism, parental homework involvement and children’s academic achievement is more complex than originally hypothesized, and thus needs to be further delineated. The Hispanic population is one of the fastest growing populations currently in the United States (U.S Census Bureau, 2014). Results of the current study shed light on the idea that as the United States educational system steadily becomes diversified, it is important to examine closely the potential differential impact of parental influence on children’s academic achievement among different ethnic and cultural groups. Further, the results of the current study illustrate the importance of conducting intercultural examinations to further explore variations in the influence of culture (e.g., Lamm & Keller, 2007).

Second, this study emphasizes the advantageous role of having high optimism and the protective factor that optimism can serve for the development of individuals, both from the parent as seen within the Hispanic subgroup of this particular study, and within the adolescent (Tetzner & Becker, 2015). In an article written by Chen (2012), the author comments that certain factors, such as holding on to meaning and optimism in life, is related to good health in a low socioeconomic status context over time. The idea of persisting is defined by sustaining optimism in the face of adversity (Chen, 2012). Lastly, it is important to remember, as practitioners, the array of diverse students and families is ever increasing. Moving forward, best practices suggests always finding ways to work towards cultural competency. This means being familiar and knowledgeable about current research and resources in relation to cultural groups, cultural values, behaviors, and attitudes in the United States and beyond (Edwards, Holtz, & Green, 2007).

Future Direction

The current study was able to add to the overall literature on factors influencing academic achievement and parental optimism. While the results did not support the overall hypothesis, a small, yet significant finding was discovered when the sample was broken down by ethnicity. More specifically, parental optimism significantly predicted children’s academic achievement within the Hispanic subgroup. There are a few questions that arise from the interesting findings within this study. While the complex relationship between parental homework involvement, parental optimism, and academic achievement was beyond the scope of this study, it is an important relationship to explore for further research. The significance within the Hispanic subgroup was lost once parental homework involvement was included in the model, thus suggesting a gap in the knowledge of the relationship between parental involvement and parental optimism. There may be few potential reasons as to why the two variables are highly correlated.
with one another. Researchers have suggested inconsistent definitions of what parental involvement may look like. Fan and Chen (2013) outlined a definition that included physical involvements, such as presence, time, and resources; however their definition did not include factors such as parental attitudes and perceptions, which has been shown to significantly impact academic achievement (Bush & Peterson, 2013; Heinonen et al., 2006; Yang, 2007). More so, both variables may be tapping into a similar construct, such as parental support or expectations about academic achievement.

In conclusion, as previously discussed, the instrument used within this study was an indicator of general or overall parental optimism. To date, there are no known current instruments created that measure parental optimism in relation to their child’s academic achievement. The creation of this measure would be highly meaningful to replicate this study in the future. A more targeted instrument could assist researchers and practitioners when working with diverse families and building school-home relationships.


Blevins, B. M. (2009). *Effects of socioeconomic status on academic performance in Missouri public schools.* (Ed.D.), Lindenwood University, Ann Arbor, MI.


Strayhorn, T. L. (2010). *The role of schools, families, and psychological variables on math achievement of black high school students*, 177-194.


