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The Relationship Between Early Familial Racial/Ethnic Socialization and Academic Outcomes of African American Students and the Mediating Effects of Self-Efficacy: A Longitudinal Analysis

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THE RELATIONSHIP BETWEEN EARLY FAMILIAL RACIAL/ETHNIC SOCIALIZATION
AND ACADEMIC OUTCOMES OF AFRICAN AMERICAN STUDENTS AND THE
MEDIATING EFFECTS OF SELF-EFFICACY: A LONGITUDINAL ANALYSIS

By

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To the treasured memories of my parents,
Martha and Jesse Walker - gone far too soon.

Without their guidance, love, sacrifices, and prayers, none of
my successes would have been possible. This work - and every
accomplishment associated with it - is dedicated to them.

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ABSTRACT

The purpose of this study was to examine the relationships between early familial racial/ethnic socialization and the self-efficacy and academic achievement of African American children during the elementary years, and across the transition to middle school. In particular, the mediatory effects of self-efficacy were examined longitudinally. The Early Childhood Longitudinal Study Kindergarten class of 1998 – 1999 (ECLS-K) was used to examine the impact of kindergarteners' at-home exposure to racial/ethnic socialization on levels of school-related self-efficacy and academic achievement of the same children in fifth and eighth grades. African American students (N = 3224) from this nationally representative dataset were a part of this study. Albert Bandura's Social Cognitive Theory (previously referred to as the Social Learning Theory) with particular focus on his conceptualization of Self-Efficacy, was used as a guiding framework for this study. Analyses were conducted using Structural Equation Modeling (SEM). Results showed that there was a significant and positive relationship between early childhood racial/ethnic socialization and the later academic achievement of pre-adolescent and adolescent African American school children in both fifth and eighth grades. However, the results also indicated that that self-efficacy had only minimal and insignificant mediating effects on the relationship between racial/ethnic socialization and academic achievement. The implications from these findings include impetus for marriage and family therapists and other practitioners and educators to include more family-centered and ethnically/racially relevant strategies and interventions to support families faced with school-based difficulties. Additional implications for therapists, educators, and researchers, were discussed.

CHAPTER ONE

INTRODUCTION

America is faced with many challenges related to the success of its youth. One of the greatest societal challenges is the prevalence of educational disparities in schools throughout the country. A pronounced gap exists between the levels of academic success experienced by Caucasian students, and those experienced by students of diverse ethnic and racial backgrounds (Brooks-Gunn, Klebanov, Smith, Duncan, & Lee, 2003; National Center for Education Statistics, NCES, 2009; Wong & Hughes, 2006). In particular, the “Black-White academic achievement gap” – a phrase commonly used in the literature – has received a great deal of attention in recent years, in part because although the size of the gap has varied over time, African American students’ progress is inconsistent, and, in many cases, not on par with other minority groups (Barton & Coley, 2010). In fact, the agency charged with tracking and analyzing assessments of academic achievement since the late 1800’s, The National Center for Educational Statistics, reports that African American students continue to trail their Caucasian peers on virtually all standardized assessments of achievement in reading and math (NCES, 2002, 2009).

Many recent policies and/or interventions aimed at closing the gap that have been supported by research published by the NCES and agencies like it have been implemented on a large scale across the nation – with little or no success (Green, 2008). Such legislative mandates or other strategies include “No Child Left Behind,” “Race to the Top,” class size reduction, Head-start programs, increased technology in the classroom, and drop-out prevention, to name a few (Green, 2008; Marcon, 1999). The common thread across these policies and interventions is that are all school-based and/or outcome-driven responses to low academic achievement. They almost completely ignore the familial and societal processes in which school-aged children

engage, and in which their views about themselves and about education have been shaped. Properly addressing these areas could hold promise for a paradigmatic shift in the view of academic systems held by many African Americans (Oyserman, Kimmelmeier, Fryberg, Brosh, & Hart-Johnson, 2003). The continuing achievement disparities are longstanding and significant, and prompt the need for research that proposes innovative strategies addressing the contextual and underlying causes of low academic performance for many African American school children.

There is some controversy surrounding the value of race-specific versus race-neutral strategies for addressing the pervasive occurrence of lower academic achievement among African American youth, with some scholars favoring a race-neutral approach, or one that de-emphasizes race (Carlson, 2004; Fordham, 1988; Fordham & Ogbu, 1986; Steele, 1997). Studies published by scholars such as these have shown evidence that membership in minority groups that have been publicly regarded as underperforming is associated with negative stereotypes that can impact the self-views of those within the identified groups. “Stereotype threat,” which was first empirically examined by Steele and Aronson (1995), has been found to have unfavorable effects on the functioning of African Americans and other marginalized groups in academic settings – and other domains – in over 300 published studies (Nguyen & Ryan, 2008; Stroessner & Good, n.d.). So de-emphasizing race, or focusing on “raceless” strategies to assist African American school children may well be missing a component of overcoming years of negative views and lowered expectations. This is why racial/ethnic socialization can be so meaningful for these students. Acknowledgement of the unique nature of the history of African Americans, and of the resulting sub-cultural and sometimes bi-cultural nature of many African American families could help re-frame the challenge of closing the academic achievement gap between African

American and Caucasian school children, and aid in better understanding of it. Specifically, studies have found that certain elements of racial/ethnic socialization – especially those that counter some of the negative messages about African Americans – have a positive effect on academic outcomes for African American and other racially diverse children (Brown, Linver, Evans, & DeGennaro, 2008; Rodriguez, Umanda-Taylor, Smith, & Johnson, 2009; Smalls, 2008).

The history of oppression and disadvantage experienced by African Americans has caused many American families of African descent to internalize a self-depreciating view of themselves. This can be detrimental to the development of academic self-efficacy. Additionally, because of the wide-spread stereo-typical representations and expectations of African Americans, many school aged children may not view themselves as being capable of excelling in school, especially if they have not seen this accomplished by many in their community. Ogbu's theory of oppositional culture posits that this lack of fit between the ideas of academic success and other representations of African Americans causes school-aged children to feel stigmatized if they excel academically (1988). Using this lens, the social cost of being academically successful would be too much for these African American school children. Although Ogbu's theory has been criticized for its view of African American youth as "oppositional," and it has not been widely empirically tested, other studies have demonstrated the value of increasing ethnic racial socialization to counter the negative views and discrimination that have been experienced and internalized by African American adolescents (Neblett et al., 2006). Racial/ethnic socialization can allow African American families to counter the negative images, expectations, and stereo-types that are likely affecting the development of their African American children, and replace those constructions with positive views of African Americans and the positive consequences of

academic success, thus empowering the family and school-aged child to develop a strong sense of academic self-efficacy.

Because the process of racial/ethnic socialization includes the transmission of messages about norms, values, beliefs and behaviors that are acceptable in various aspects of life, Albert Bandura's Social Cognitive (Learning) Theory (1977) provides an ideal framework within which to examine these relationships. In particular, Bandura's conceptualization of self-efficacy (2002) addresses a crucial component of the process in which socialization impacts academic achievement. As such, self-efficacy will be examined for its mediating properties in this study, as it is believed that the inclusion of racial/ethnic socialization in crucial developmental stages of African American children will help them to have positive views of themselves and their abilities.

Background of the Problem

The academic achievement of African American youth and its comparison to the achievement of Caucasian students has been a subject of research for many decades (Entwisle & Alexander, 1988; Kerckhoff & Campbell, 1977; Witty & Decker, 1927). Historically, this issue, along with many others related to African Americans has been viewed in a pathological or deficiency-oriented manner (Bempechet, 1989; Moynihan, 1965). Over the years, this view of African American academic performance has changed from one based in perceived genetic deficits, to the view that the hindrances are simply cultural in nature, to, finally, the acknowledgement that there are social and institutional inequities that thwart the academic attempts of many African American and other minority-identified students (Erickson, 1987). Although it is no longer acceptable to pathologize African American families in this way, many researchers still employ a deficiency-oriented model when studying African Americans. This

deficiency orientation is not unique to research, and is evident at many levels of American society, including in the views of many within the African American community.

African American youth disproportionately attend large, urban, comprehensive schools that have a high concentration of families with low-socioeconomic-status, which has often been associated with lower academic outcomes (Brooks-Gunn et al. 2003; Wu & Qi, 2006). Because levels of academic achievement and rates of successful graduation in many of these urban schools are reported to be quite low in comparison to national averages (Baker, 2005), these students are at higher risk for special education placement, suspension, expulsion, school violence, and academic failure (Ferguson, 2003). Scholars have made numerous suggestions as to what ecological and family characteristics are most significantly associated with academic achievement of African American students. These suggestions have included SES (Brooks-Gunn et al. 2003; Wu & Qi, 2006), parent education (Byrnes, 2003), family household structures deemed less desirable such as single parent or grandparent headed households (Simons, Chen, Simons, Brody, & Cutrona, 2006), negative perceptions of living environments (Williams, Davis, Cribbs, Saunders, & Williams, 2002), and unfavorable parenting practices (Shumow, Vandell, & Posner, 1998).

However, studies such as those referenced above tend to overlook the potential for strengthening social interaction and processes within African American families in these various contexts. Racial/ethnic socialization is one such type of social interaction. For African American children, issues of minority status and ethnic identity development can exacerbate the challenges of achieving academic success. Furthermore, school-aged children of color are exposed, on a regular basis, to a myriad of opportunities to learn about the views that others hold about racial/ethnic diversity (Phinney & Chavira, 1995). Ensuring that some of those opportunities are

positive and self-affirming could equip African American children to counter the negativity they may experience. This is important because it has been documented that African American children who are not able to counter negative ideas about them tend to internalize the negative messages, and then display dis-identification with those who are academically successful (Ogbu, 1987, 2004; Steele & Aronson, 1995). While Ogbu and colleagues often frame the academic struggle of African American youth in a deficit-based, oppositional culture viewpoint, other scholars, such as Cross (2003), Mason (2007), and Spenser, Noll, Stoltzfus, and Harpalani (2001) posit that the historical and structural inequalities, discrimination and stigmatization are more salient factors. Mason (2004) even theorizes that the highly racialized society in which African American youth are socialized presents a critical need for redistribution of resources to prevent continued racial segregation, and the continuation of the ever-present socioeconomic and academic gaps. Mason and several other scholars suggest that strengthening of racial identity and racial socialization are not only useful, but critical to the healthy development of African Americans, and for African American youth to properly establish well-rounded, egalitarian identities (Bowman & Howard, 1985; Cross, 2003; Mason, 2004; Neblett, Philip, Cogburn, & Sellers, 2006).

Another related, but distinct issue of socialization and identity that affects the achievement of African American students is the concept of a double consciousness, first discussed by one of the most distinguished educators in American history, W.E.B Dubois in *The Souls of Black Folks* (1903). Dubois, the first African American to earn a Ph.D. from Harvard University in 1895, stated that the African-American lives in

a world which yields him no true self-consciousness, but only lets him see himself through the revelation of the other world. It is a peculiar sensation, this dual

consciousness, this sense of always looking at one's self through the eyes of the other, of measuring one's soul by the tape of a world that looks on in amused contempt and pity. One ever feels this twoness--an American and a Negro, two souls, two thoughts, two unreconciled strivings, two warring ideals in one dark body, whose dogged strength alone keeps it from being torn asunder. (p. 2)

Though this writing is dated, the theme expressed in this passage is echoed in the research of scholars such as Ogbu (1987), whose views were more deficit-based; and Steele and Aronson (1995), who explored the effects of dual consciousness as it related to the threat(s) of stereotypes. The concept of double consciousness has also been referred to as Bi-Cultural Identity. It is suggested that Bi-Cultural Identity helps African American youth to achieve academically while maintaining a strong sense of group membership (Miller, 1999). In addition to family-based racial socialization, it is recommended that African American families instruct African American children who exhibit a need for group membership on the value of being able to “Code Switch” – operating or communicating comfortably in the subculture that is distinctly African American, and in the dominant culture of mainstream America – which are both necessary to be successful in the social and academic arenas of American schools (Miller, 1999). Perspectives such as these, which take historical and subcultural contexts into consideration, aide in understanding the psyche of many African American families with children who struggle academically, and indicate the need for strategies that school-based curriculum changes or remediation could never address.

Purpose of the Study

The purpose of the current study was to expand upon previous research by examining the relationships between racial/ethnic socialization, self-efficacy and academic achievement from a

longitudinal perspective. Few scholars have investigated the impact of racial/ethnic socialization in very young children, and even fewer have looked at this association longitudinally. This study was unique in its examination of these associations over a span that includes all of the elementary years, and allowed for implications regarding protective factors for African American school children as they matriculate through elementary school, enter the challenging period of adolescence and middle school, and then approach the challenging transition to high school. Another unique purpose of this study was the inclusion of the concept of self-efficacy and how it impacts the relationship between the socialization and the academic success of African American youth.

The challenges of school achievement can be exacerbated by many factors within the lives of school children. One of those challenges is overcoming the many pre-determined transitions that all children experience. These include: leaving child-care settings and starting grade school with its structure and expectation of independence (kindergarten); the completion of elementary school after – for most children – six years at the same school (fifth grade), which is accompanied by pre-adolescence and the transition into middle school; and approaching the completion of middle school and the impending transition to high school along with all of the challenges of adolescence. All of these transitions are recognized as times of increased stress and difficulty (emotional and academic) for many children (Parker, 2010; Seidman, Allen, Aber, Mitchell, Feinman, 1994). Because adolescence is a time of rapid developmental changes and physical maturation, this can make the prospect of academic success during adolescence especially challenging for African American youth, for whom issues of autonomy, race, and ethnic identity can exacerbate this difficult time (Bowman & Howard, 1985; Stevenson, Herrero-Taylor, & Davis, 2002). The multi-disciplinary documentation of the increased stress at the

times in academic progression is what supports the choice to examine the waves of data associated with the above mentioned grades for the current study.

Research Questions

- 1.) To what extent will early racial/ethnic socialization predict later academic achievement for African American children when controlling for child gender, family SES (parent's/caregiver's educational attainment and income), school type, mother/father type, marital status of parents/caregivers, and parental expectations?
- 2.) To what extent will self-efficacy mediate the relationship between racial/ethnic socialization and academic achievement for African American school children when controlling for child gender, family SES (parent's/caregiver's educational attainment and income), school type, mother/father type, marital status of parents/caregivers, and parental expectations?

Definition of Terms

- 1.) Academic Achievement – For the purposes of this study, academic achievement – generally defined as the outcome of educational activities - is represented by cognitive assessment scores in reading and math.
- 2.) Racial/Ethnic Socialization – Racial/ethnic socialization has been defined by scholars as the process during which children in families of minority status are informed about what it means to be members of racial/ethnic minority groups, and during which a protective barrier against discrimination and inferiority can be provided (Brown, Liner, Evans, & DeGennaro, 2008; Lesane-Brown, 2006; Phinney & Chavira, 1995; Rodriguez, Umada- Taylor, Smith, & Johnson, 2009; Stevenson, Herrero-Taylor, & Davis, 2002). For the purposes of this study, racial/ethnic socialization is indicated by family

discussions about racial/ethnic heritage, family participation in cultural activities or events that are relevant to racial/ethnic heritage, and family discussions about religion.

- 3.) Self-efficacy – Albert Bandura defines self-efficacy as "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (1995). For the purposes of this study, self-efficacy will apply to the levels of interest and competence expressed by African American school children as related to their reading, math, science, and peer relations.
- 4.) School-aged – Because the academic outcome and self-efficacy of the children in this study is measured at multiple points in time during which the children were of different ages, "school-aged" or "school-aged children" will be the general terms used to refer to the participants. Another term that may be used to refer to the minor participants is "pre-adolescents," and "adolescents."

Abbreviations

- 1.) ECLS-K - the Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999.
- 2.) NCES - the National Center for Educational Statistics; sponsor for the Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999.
- 3.) RES - Racial /Ethnic Socialization
- 4.) SE - Self Efficacy
- 5.) HEQ - the Home Environment, Activities, and Cognitive Stimulation Questionnaire.
- 6.) SDQ - the Self-Description Questionnaire.

Delimitations

Analyses of an existing dataset was used for this study. Due to this, the following delimitations are acknowledged:

- 1.) The sample for this study was limited to the African American children who were included in the Early Childhood Longitudinal Study, Kindergarten class of 1998-1999, and participated in the data collection that occurred in the spring of 1999 (kindergarten), spring of 2004 (fifth grade), and the spring of 2007 (eighth grade).
- 2.) The measures used in this study were limited to those that were used in the data collection for the Early Childhood Longitudinal Study, Kindergarten class of 1998-1999, in the spring of 1999 (kindergarten) for the predictor variable, and in the springs of 2004 (5th grade) and 2007 (8th grade) for the mediator and outcome variables.

CHAPTER TWO

LITERATURE REVIEW

Historically, African American families have always placed a high value on academic achievement, as many viewed it as a means by which their children could have a better life than previous generations (Franklin, Boyd-Franklin, & Draper, 2002). However, it is difficult to reconcile this achievement orientation with the consistent lower levels of academic achievement demonstrated by African American school children across the country. What is clear in the literature is that there are multiple factors that impact the academic performance of African American children. While SES, parent involvement, and family structure have all been associated with the academic achievement of African Americans (Brooks-Gunn et al., 2003; Byrnes, 2003; Taylor et al., 2004; Wu & Qi, 2006), these variables leave out the more dynamic and directly impactful socialization that takes place in the homes of African American children. Several studies have found that increased racial or ethnic socialization is highly associated with increased academic engagement or achievement in African American youth, and racial/ethnic socialization to be a protective factor for youth in high risk living environments (Brown, Liner, Evans, & DeGennaro, 2008; Rodriguez, Cavaleri, Bannon, & McKay, 2008; Smalls, 2008). The transmission of messages related to values, norms, and achievement expectations is on-going, and more study of this process and its association with academic achievement in African American families can encourage family- and school-based paradigmatic shifts that promote closure of the academic achievement gap. In the following section, Albert Bandura's Social Cognitive Theory will be presented as the guiding framework for illustrating the proposed value of racial/ethnic socialization for shaping the self-views of African American children.

Theoretical Framework: Social Cognitive Theory

The current study utilized Albert Bandura's Social Cognitive Theory as a framework.

Bandura (2002) wrote,

Self-efficacy beliefs regulate human functioning through cognitive, motivational, affective, and decisional processes. They affect whether individuals think in self-enhancing or self-debilitating ways; how well they motivate themselves and persevere in the face of difficulties; the quality of their emotional life, and the choices they make at important decisional points that set the course of life paths. (p. 270)

Hence, the academic motivation and achievement of African American school children is regulated by what they believe they can accomplish in school. In a society where negative images and stereotypical beliefs about African Americans are plentiful, and have likely shaped the self-views held by many African Americans (Baker, 2005; Neblett, Philip, Cogburn, & Sellers, 2006), this study aimed to connect specific communication and activities amongst family members with the realized academic success of the children, thus highlighting strengths within African American families which can serve to be impactful mechanisms in closing the Black-White academic achievement gap in America.

The Social Cognitive Theory emphasizes the importance of observing and modeling the behaviors, attitudes, and emotional reactions of others. Social Cognitive Theory encompasses attention, memory and motivation, and spans both behavioral and cognitive frameworks. It expands upon the strictly behavioral interpretation of modeling provided by earlier "pure" behaviorists like Watson, Pavlov, and Skinner. The Social Cognitive Theory, credited to Albert Bandura (1977b), was originally known as the Social Learning Theory due to its roots in behaviorism. In the 80's, Bandura began referring to his theory as the Social Cognitive Theory,

and it has become one of the most well-known and influential theories of learning and cognition.

Albert Bandura noted that external, environmental reinforcement was not the only factor to influence learning and behavior. He described intrinsic reinforcement as a form of internal reward, such as pride, satisfaction, and a sense of accomplishment. This emphasis on internal thoughts and cognitions helps connect learning theories to cognitive developmental theories. Not all observed behaviors are effectively learned. Factors involving both the model and the learner can play a role in whether social learning is successful. Certain requirements and steps must also be followed. The following steps are involved in the observational learning and modeling process:

- **Attention-** Involves active attending to the features of the modeled behavior. Many factors contribute to the amount of attention paid to the modeled activities, such as the characteristics of the observer, the person being observed and competing stimuli.
- **Retention-** Refers to the ability of a person to remember the activities modeled at one time or another. Imagery and language aid in this. Humans store the behaviors they observe in the form of mental images or verbal descriptions, and are then able to recall the image or description later to reproduce the activity with their own behavior.
- **Reproduction-** Reproduction involves converting symbolic representations into appropriate actions. A person's ability to reproduce a behavior improves with practice.
- **Motivation-** To imitate a behavior, the person must have some motivating factor behind it, such as incentives that a person envisions. These imagined incentives act as reinforcers. Negative reinforcers discourage the continuation of the modeled activity.

Self-Efficacy

In the late 1970's and the 1980's, Albert Bandura began to concentrate more on the self-efficacy component of social cognition. This component of social cognition has been the most essential for the framework of the current study. According to Bandura, self-efficacy is "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations." In other words, self-efficacy is a person's belief in his or her ability to succeed in a particular situation. Efficacious people are quick to take advantage of opportunities and figure out ways to overcome institutional constraints. People with a strong sense of self-efficacy are more likely to view challenging problems as tasks to be mastered, and recover quickly from setbacks and disappointments. Those with a weak sense of self-efficacy typically avoid challenging tasks, because they believe that difficult situations are beyond their abilities. They also may focus on negative outcomes, and lose confidence in personal abilities.

According to Bandura, there are four major sources of self-efficacy. They are:

- ***Mastery Experiences***, or performing tasks successfully;
- ***Social Modeling***, or observing other people successfully completing a task;
- ***Social Persuasion***, which is receiving verbal encouragement from others; and
- ***Psychological Responses***, our own responses and emotional reactions to situations also play an important role in self-efficacy. A person who becomes extremely nervous before speaking in public may develop a weak sense of self-efficacy in these situations.

Although there has been limited consistency in the use of theory within the parental racial/ethnic socialization body of literature, Bandura's Social Cognitive Theory has been used in previous studies addressing family racial/ethnic socialization and academics of African American children. Brown, Tanner-Smith, and Lesane-Brown (2009) used this perspective to examine the link between racial/ethnic socialization and the academic

performance of African American kindergarteners and first graders. They found that family racial/ethnic socialization was associated with higher academic achievement scores in kindergarten, but not first grade. Interestingly, these authors also found that with very frequent (as well as very infrequent) socialization, the impact on academic performance became negligible, which could indicate a need for balanced levels of racial/ethnic socialization. In a study investigating child, parent, and situational correlates of family-based racial/ethnic socialization, the Social Cognitive Theory was used to support the authors' prediction (and confirmed findings) that certain demographic and situational correlates (such as school engagement and involvement) would have a significant impact on the frequency of racial/ethnic socialization. Another study looked specifically at Bandura's model of self-efficacy as an independent outcome (Kerpelman, Eryigit, & Stephens, 2007). This study was unique in structure in that it assessed the future educational outlook of African American school children. Along with other theories that are focused on cultural development and the realities of how living in a subculture significantly affects the cognitive functioning of African American school aged children, the Social Cognitive Theory was used to help frame a comprehensive review of race socialization of Black families (Lesane-Brown, 2006) that also explored various outcomes of African American families and youth – including school achievement.

Along with the Social Cognitive Theory, tenets from the following theoretical models/concepts will also be used throughout the study to provide explanation, support, and expansions: Phinney's Model of Ethnic Identity Development (1990), Steele and Aronson's conceptualization of Stereotype Threat (1995), Robert Merton's conceptualization of the Self-Fulfilling Prophecy (1948), and the Cultural Ecological Theory – also referred to as the Theory of Oppositional Culture – (Ogbu, 1987, 1988, 2004).

Academic Achievement and African American Families

The current age of academic accountability began with the passage of the No Child Left Behind Act (NCLB) in 2002. Although the low levels of academic achievement and educational outcomes for African American and other minority school children were already well-documented, NCLB brought with it a renewed and centralized focus on the academic achievement gap, and the crucial need to facilitate closure of that gap and ensure that all children, no matter their racial/ethnic or socioeconomic background, would demonstrate academic success and be college ready upon graduation from high school (NCES, 2009). However, the various types of school-based interventions and remediation have still left African American children performing at about 27 – 32 percentile points lower than their Caucasian peers in basic academic skills (Rothstein, Jacobson, & Wilder, 2008). Recent data from the National Assessment of Educational Progress (NAEP) indicate that while 33% of all fourth grade students performed at or above a proficient level in reading, only 14% of African American students performed at or above this level, compared to 46% of all Caucasian students. Data from eighth grade assessments were similar – 31% of all students performing at or above a level of proficiency; 40% of all Caucasian students, and 13% of African American students. The assessments for math indicated performance levels with even wider gaps: 39% of fourth graders at or above proficiency, 51% of all Caucasian students, and only 16% of all African American 4th grade students. In the eighth grade, 55% of Caucasian students were proficient or above in math, and 12% of African American students (Aud, Fox, & Kewal Ramani, 2010). As previously stated, there has been scholarly attention on the achievement patterns of African Americans for decades (Entwisle & Alexander, 1988; Kerckhoff & Campbell, 1977; Witty & Decker, 1927), but there has been no consistent progress towards the closure of these gaps. Some of the more

alarming analyses of NAEP data suggest that the process of closing the gap in reading could take up to 30 years or more. For math, a startling 75 year span of time is proposed (Hedges & Nowell, 1999). These data underscore the very pressing need to identify effective alternatives to facilitate gap convergence.

The effects of the seemingly perpetual academic achievement gap impact not only the children who are experiencing academic difficulty, but their families as well (Leach & Williams, 2007). Even among African American families who are not low-income and observably at-risk for failure, African American children still seem to perform lower than their Caucasian peers (Gosa & Alexander, 2007). Numerous suggestions are made throughout the literature as to what family characteristics have the greater effects on the Black-White achievement gap. These suggestions have included SES (Brooks-Gunn, Klebanov, Smith, Duncan, & Lee, 2003; Wu & Qi, 2006), parent education (Byrnes, 2003), less favorable family household structures such as single-parent or grandparent led households (Simons, Chen, Simons, Brody, & Cutrona, 2006), unfavorable parenting practices (Shumow, Vandell, & Posner, 1998) and lack of parent involvement and socialization (Brown, Liner, Evans, & DeGennaro, 2008; Smalls, 2008; Taylor, Clayton, & Rowley, 2004). Although it has been documented that even in non-disadvantaged African American families, there still exists a gap between those children and their Caucasian peers; there are still valuable processes to examine within these families (Gosa & Alexander, 2007). The persisting lag in academic achievement in these families suggests that there are other factors that continue to hinder even economically advantaged African American children. This study aimed to focus on the socialization processes that are on-going within these families, and how these processes correlate with African American's children's feelings about their academic ability, and the achievement level(s) they accomplish.

Racial/Ethnic Socialization in African American Families

In their 2000 decade review of the 1990's, Demo and Cox suggested that more researchers should examine and define family dynamics and outcomes within ethnic, racial, and/or cultural contexts. Despite this, the effects of culturally socializing messages on parent/guardian-child interactions in African American homes have been examined only minimally (Attaway & Bry, 2004; Cooper & Smalls, 2010; Smalls, 2008). Comparisons between African American family functioning and the functioning of Caucasian American families – with the latter being viewed the as ideal – continue to make up the majority of the research on African American parent-child interactions. Though the number of studies on parenting in African American families have increased in recent years, it has proven to be a complex task to adequately recognize both the common and the diverse parent-child processes within African American families (Tamis-LeMonda, Briggs, McClowry, & Snow, 2008). Parent-child processes such as parenting style, communication of expectations, and parental academic involvement can have far-reaching effects on child and adolescent outcomes such as academic achievement. According to a comprehensive review on race socialization in African American families (Lesane-Brown, 2006) all of the aforementioned family processes, plus life course development and identity formation can be linked via the study of racial/ethnic socialization. Based on several previously published definitions, Lesane-Brown (2006) defines racial/ethnic socialization as:

specific verbal and nonverbal messages transmitted to younger generations for the development of values, attitudes behaviors and beliefs regarding the meaning and significance of race and racial stratification, intergroup and intragroup interactions, and personal and group identity. (p. 4)

In another review of parental racial/ethnic socialization, the following dimensions of socialization were identified: cultural socialization (including promotion of pride and awareness/appreciation of heritage), preparation for bias (alertness to and coping with discrimination), promotion of mistrust, and egalitarianism (Hughes, Rodriguez, Smith, Johnson, Stevenson, & Spicer, 2006). It is believed that the use of culturally relevant and positive socialization including any (or all) of the previously mentioned dimensions in African American families experiencing academic failure, can counter the effects of the negative global socialization to which many African Americans are regularly exposed, and help African American families to construct more self-efficacious and empowered views of academics (Cooper & Smalls, 2010). In a 2009 study by Smalls which examined parenting style in relation to multiple components of racial socialization, it was revealed that when youth reported their mothers as being more involved and providing more opportunities for decision making, racial socialization was positively related with engagement. There was a negative association when mothers were rated as being less involved, and with fewer opportunities for decision making. The results also suggested that racial barrier messages may be ambiguous in nature, and could be associated with inconsistent outcomes. The author recommended that more attention should be paid to this ambiguity in future research, and that this construct (closely related to the “promotion of mistrust” dimension referenced above) may need to be reconsidered (Smalls, 2009).

A 2010 decade review of research on families of color (Burton, Bonilla-Silva, Ray, Buckley, & Freeman, 2010) documented an increase in the attention to familial racial/ethnic socialization of African American youth, and noted that there is a continuing question related to the interaction between racial socialization and contextual messages to minority children about

conforming to the dominate society. Since parents/caregivers are arguably the most immediate and consistent influences on the social development of youth, parental impact on their youths' views of academic efficacy and academic outcomes can counter the effects of the negative socialization to which many African American adolescents are regularly exposed, and the social costs that some African American adolescents may experience when they realize academic success (Fuller-Rowell & Doan, 2010; Ogbu, 1987).

While it is believed that “there is not yet a satisfying solution for unambiguously distinguishing socialization that is *racial* from socialization that is *ethnic*...” and “both terms are too broad and nonspecific to be conceptually or empirically useful” (Hughes et al., 2006), ethnicity in particular has been explored in-depth in studies which focused on the protective aspects of minority group socialization. One area of ethnic relevance which is a recurrent focus within this body of literature is religious and/or spiritual beliefs and coping (Fatimilehin, 1999; Hughes & Johnson, 2001; McKay, Atkins, Hawkins, Brown, & Lynn, 2003; Stevenson, 1995; Stevenson, Cameron, Herrero-Taylor, & Davis, 2002). Religiosity and/or spiritual coping has been found to be a factor of resiliency that positively influences the socialization of African American youth. Historically, religion and spirituality have been proven to be culturally effective strategies for African American to manage and cope with the challenges of living with social injustices, inferior resources, and disparate health concerns. Stevenson et al. (2002) found that high levels of adolescent pride in his/her culture were highly correlated with spiritual and religious beliefs about coping with stressors like discrimination. Scholars have also found that religious beliefs and practices are often more common for youth of color than for their Caucasian peers (Donahue & Benson, 1995; Wallace, Forman, Caldwell & Willis, 2003), and African American youth are, on average, more religious than their non-African American counterparts.

Racial/Ethnic Socialization and Academic Achievement

It has been demonstrated that parents communicate their views on education to their youth in many ways. With regard to socialization and academic achievement, there are several parental behaviors that have been identified as being impactful on the school related performance of their youth (Taylor et al., 2004). In multiple studies, scholars have shown that parental socialization specific to academics – such as involvement, co-activity and reinforcement/ encouragement – can positively affect academic achievement (Cooper & Smalls, 2010; Hara & Burk, 1998; Hill & Craft, 2003). In a recent study on relationships between academic and culturally distinctive socialization and relationships with African American youth, authors predicted academic and culturally distinctive parental socialization would be positively associated with academic achievement. With a sample of 144 African American adolescents in the 6th through 8th grades, the authors found partial support for their hypotheses: promotion of cultural pride was associated with increased classroom engagement and achievement. However, since African American parents may engage in both cultural and academic-related practices – often at the same time – teasing out the impact of the different types of socialization was suggested for future research (Cooper & Smalls, 2010). With a sample of 671 African American preadolescents, Murry, Berkel, Brody, Miller, and Chen (2009) demonstrated the importance of racial and ethnic socialization in enhancing African American youth resilience, and instilling in them pride that can combat negative images that they may face. Studies such as the Murry et al. (2009) study are important because of the documented connection between positive views of self and improved performance of African American children. The findings reveal associations with racial and ethnic socialization and self-pride, and the mediatory effects of self-role on ethnic and racial socialization. The authors (2009) suggested that researchers should take historical

relevance more into consideration with African American and other minority families. The current study addressed these suggestions directly, as one of the measures for racial/ethnic socialization asked about participation in events related to the family's heritage, and items measuring self-efficacy assessed the students' self-views.

Racial/Ethnic Socialization and Self-Efficacy

One of the main purposes of racial socialization is to help young people develop a healthy sense of self (Rodriguez, Umanda-Taylor, Smith, & Johnson, 2009). Although there are not many studies examining this relationship, it stands to reason that if racial/ethnic socialization is accomplishing the aforementioned purpose, there would be a relationship between academic self-efficacy and racial identity. Using an independently created measure of racial identity, Oyserman, Harrison, and Bybee (2001) examined several different components of racial/ethnic socialization that are relevant to the connection between racial identity and academic efficacy: (a) Connectedness – positive in-group identification; (b) Awareness of racism – being aware that others (out-group members) are likely to define one's self negatively and view the self only as a member of a negatively valued group; and (c) Embedded achievement – the extent to which academic achievement is viewed as an integral part of one's racial-ethnic group membership. The authors hypothesized that these components of racial identity would predict both academic self-efficacy and academic achievement of African American youth. Results of their study indicated that the embedded achievement aspect of racial identity significantly predicted academic self-efficacy for both males and females. It was also noted that significant declines in academic self-efficacy occurred when participants reported that they were high in awareness of racism and connectedness, but low in the inclusion of achievement focused messages with their racial socialization. Thus it was confirmed that the more achievement was perceived by school

children as being part of their racial/ethnic group membership, the higher their level feelings about academic self-efficacy.

Self-efficacy can also be developed as young people observe others with whom they identify achieving success in academic-related areas (Bandura, 2002). Observational learning is another major tenet guiding this research. As African American youth are exposed to positive portrayals of others in their community, and observe behaviors in their own community that exhibit self-sufficiency and high regard for academic achievement, their belief in their academic (and other) abilities can improve. In addition to positive academic outcomes, positive psychological benefits have been reported when parental racial/ethnic socialization is present – via communication messages and observed manifestations of success – for African Americans (Bowman, & Howard, 1985; Smalls, 2009).

Self-efficacy and African American Academic Achievement

According to Bandura (1995), self-efficacy is “the belief in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (p. 2). Put simply, self-efficacy is a person’s belief in his or her ability to succeed in a particular situation, such as in school. Efficacious people are quick to take advantage of opportunities and figure out ways to overcome institutional constraints. Students with this trait are more likely to ask questions, or find alternate ways to accomplish a task. Youth who have a strong sense of self-efficacy are more likely to view challenging problems as tasks to be mastered, and recover quickly from setbacks and disappointments, as opposed to seeing challenging problems as something they just can’t do. Those with a weak sense of self-efficacy typically avoid challenging tasks, because they believe that difficult situations are beyond their abilities. Avoidance of tasks will be even more likely if youth have no examples of the tasks being mastered in their home or in the

community in which they live. They also may focus on negative outcomes, and lose confidence in personal abilities. For many African American families, the history of oppression and disadvantage, along with on-going issues of race and ethnicity, in addition to lowered expectations can exacerbate normative difficulties that school-aged youth experience (Merton, 1948; Ogbu, 1987; Pinderhughes, 2002). It has been documented, however, that positive messages about self and abilities are associated with higher levels of academic engagement and desire to perform (Bowman & Howard, 1985; Neblett, Philip, Cogburn, & Sellers, 2006). Thus, socialization that improves school aged children's views of themselves has the potential to facilitate higher levels of interest in learning and achieving because the children are empowered. They feel they have the ability to affect change and accomplish goals in their own lives; in other words, they have a strong sense of self-efficacy.

Pinderhughes (2002) suggested that the history of oppression of Black Americans has caused cultural patterns that produce self-destruction, which can certainly be a hindrance to the healthy development of self-efficacy. Pinderhughes further posits that African American families must change their self-crippling responses to their societal predicaments, but that this will happen only when African Americans are removed from their "destructive social process role" (p. 280). This position is echoed in work by John Ogbu (1987) who writes about the oppositional culture theory specific to minority youth, especially those who are African American. Ogbu argues that many African American youth devalue academic success because it is perceived as an act of conforming to the norms of the White, dominate culture. Although this theory has received little empirical support in the literature, the suggestion that there is the tendency for some African American youth – especially those who have been regularly exposed to negative portrayals of African Americans in the media, and who have not experienced modeling and

reinforcement of academic success in their home environments – to devalue their education has been supported in research (Neblett et al., 2006).

Kerpelman et al. (2007) found that self-efficacy was a significant predictor of future academic orientation for African American students in grades 7 – 12. Although this study did not look specifically at academic achievement measures, the indication of improved academic orientation holds promise for these students' personal expectations related to academics. It was also proposed that the higher future academic orientation bolstered the students' motivation to reach their academic goals. The current study expanded upon these findings by examining the relationships between self-efficacy and academic achievement, and investigated the additional predictive power of the racially and ethnically specific socialization.

Summary

The academic achievement gap has been a subject of research for many decades (Entwisle et al., 1988; Kerckhoff & Campbell, 1977; Witty & Decker, 1927), and many sources anticipate that the pronounced gap will exist for decades to come (Barton & Coley, 2010; Hedges & Nowell, 1999; NCES, 2009). While it is clear that there are many factors that influence the academic performance of African American children (Brooks-Gunn et al. 2003; Byrnes, 2003; Simons et al., 2006; Shumow et al., 1998; Williams et al., 2002; Wu & Qi, 2006), a large amount of attention has been placed on the school-based and other meso-level strategies and interventions (Green, 2008; USDOE, 2003). The bi-directional, micro-level processes of socialization that take place in the homes and communities of many African American children have received only moderate attention in the literature. Within this body of literature, it has been shown that certain components of RES have positive effects on the academic achievement of African American children (Brown et al., 2008; Cooper & Smalls, 2010; Rodriguez et al., 2009; Smalls, 2008). It has also been demonstrated that positive views of self – reflected in measures of

self-esteem, self-efficacy, and academic expectations – have positive relationships with academic performance (Bowman & Howard, 1985; Kerpelman et al., 2007; Murray et al., 2009; Neblett et al., 2006). However, there are no known studies that examine the mediating properties of SE on the relationship between RES and Academic Achievement. Additionally, studies examining the effects of RES tend to focus on adolescent socialization (Cooper & Smalls, 2010; Rodriguez et al., 2010; Taylor et al., 2004). No previous studies looked at the impact of early childhood RES on later academic achievement across the transition to adolescence.

CHAPTER THREE

METHODS

In this chapter, an overview of the dataset, research design, and methodology is provided. The sample will be described in detail, as will the data collection techniques, the measures and variables of interest. Additionally, an explanation of the treatment of missing data will be provided, along with information on power, and the data analysis strategy.

Early Childhood Longitudinal Study - Kindergarten Class of 1998-1999 (ECLS-K)

The data for this study were extracted from the publicly available Early Childhood Longitudinal Study, Kindergarten Class of 1998-1999 (ECLS-K). The ECLS-K was sponsored by the National Center for Educational Statistics (NCES), an agency within the U.S. Department of Education that is charged with collecting and analyzing data about the assessments, status, and well-being of America's school children. The NCES then uses these data to further educational research and influence educational policies and practices. The ECLS-K is a nationally representative sample in which seven waves of data were collected from interviews and/or assessments completed with participating children, parents/guardians, teachers, and administrators. The data were collected in seven waves over a nine-year span: in the fall and spring of the 1998-1999 school year (kindergarten – base year); the fall and spring of the 1999-2000 school year (1st grade); the spring of the 2001 – 2002 school year (third grade); the spring of the 2003 – 2004 school year (5th grade); and the spring of the 2006 – 2007 school year (eighth grade).

The ECLS-K study was multi-purposed. Not only was a large-scale nationally representative sample obtained, participants represented a very diverse group (nine different ethnic groups were identified) and included a large representation of minority children and

families. There was over-sampling of certain groups that are underrepresented in the general population – this includes African American children and their families. The ECLS-K recorded children’s progress through the eighth grade using multiple assessments of various areas of development (physical, cognitive, and socio-emotional), and in multiple contexts (school, home, and community). Surveys and questionnaires were completed via computer-assisted telephone, in person, or use of participant-completed questionnaires. Most were completed via telephone interviews, with in-person interviews taking place mostly for those families who did not have working telephones. Additionally, since the ECLS-K involves repeated measures and scaled scores, it permits investigation and comparison of children’s performance or growth across grades (Tourangeau et al., 2004).

Sample

The ECLS-K sample came from a selection of 870 schools (public and private). From those schools, 12 - 24 kindergarteners were chosen from each site, resulting in a base year sample of 21,409 children. For this study, the participants of interest were the children and parents who identified as African American. Of the 21,409 children composing the ECLS-K dataset, 3,224 were African American. This study utilized data collected only from those children who were coded as African American. Additionally, select parent responses of these 3,224 children also were included. Please see Table 1 for demographic characteristics of the sample.

Table 1*Demographic characteristics (N = 3224)*

Concept/Variables	N	%
Gender		
Male	1624	50.4
Female	1600	49.6
SES		
First Quintile (lowest)	971	30.1
Second Quintile	677	21.0
Third Quintile	587	18.2
Fourth Quintile	465	14.4
Fifth Quintile (highest)	253	7.8
Missing	271	8.4
School Type		
Catholic	187	5.8
Other Religious	113	3.5
Other Private	107	3.3
Public	2817	87.4
Parent Type - Mother		
Biological	2319	71.9
Adoptive	48	1.5
Step	16	.5
Foster	36	1.1
Partner	4	.1
No resident mother	202	6.3
Missing	599	18.6
Parent Type - Father		
Biological	865	26.8
Adoptive	38	1.2
Step	111	3.4

Table 1 Continued

Concept/Variables	N	%
Foster	14	.4
Partner	75	2.3
No resident father	1521	47.2
Missing	600	18.6
Parent Marital Status		
Married	886	27.5
Separated	211	6.5
Divorced	227	7.0
Widowed	27	.8
Never Married	1123	34.8
No Bio/Adoptive Parent	211	6.5
Missing	539	16.7

Measures

Racial/Ethnic Socialization

The predictor variable for this study was a latent construct representing family-based racial/ethnic socialization (RES). This construct variable was only measured in the second wave of the base year – kindergarten, spring of 1998 – 1999. For this study, RES was represented by the responses of families to three questions: one regarding the frequency of conversations about racial/ethnic heritage, one regarding the frequency of family attendance at special events related to race/ethnicity, and the third regarding the frequency of discussions about religious beliefs or traditions. The parents/guardians were asked the following three questions: “How often does someone in your family talk with [CHILD] about (his/her) ethnic/racial heritage?,” “How often does someone in your family participate in special cultural events or traditions connected your racial or ethnic background?,” and “How often does someone in your family talk with [CHILD]

about your family's religious beliefs or traditions?" The responses for these questions were scored in the following manner: 5 = "several times a week or more," 4 = "several times a month," 3 = "several times a year," 2 = "almost never," and 1 = "never." Items were summed for this measure, and higher scores represented higher levels of each RES measure, with lower scores representing lower levels. Previous studies which used the ECLS-K dataset examining the impact of RES using this current dataset only used the first of the three above stated items (Brown et al., 2007; 2009). This study included the second question because the inclusion of activities connected with one's racial/ethnic heritage communicates a message of value about that event and is therefore related to the socialization process (Cooper & Smalls 2010; Lesane-Brown, 2006). The third question was part of the operationalization of RES because the concept of ethnicity has been conceptualized to include religious beliefs in many studies (Fatimilehin, 1999; Hughes & Johnson, 2001; McKay, Atkins, Hawkins, Brown, & Lynn, 2003; Stevenson, 1995; Stevenson, Cameron, Herrero-Taylor, & Davis, 2002). Additionally, and from a historic – and in some cases a Marxist (Cnaan, Gelles, Sihna, 2004) – perspective, numerous scholars have theorized and/or found empirical support for the notion that for African Americans, religious values, beliefs and practices help them to cope with the stigma and pain associated with a history of oppression. For the current study, Cronbach's alpha for these three items was .651.

Academic Achievement

The latent construct of academic achievement was represented by the scores reported from assessments of general knowledge in the areas of reading (basic skills, vocabulary and reading comprehension), math (conceptual and procedural knowledge along with problem solving), and science (breadth and depth of understanding/knowledge of the natural and physical world). Measures of academic achievement were documented in each of the seven waves of the

ECLS-K. For this study the scores from the sixth (5th grade) and sixth (8th grade) waves were used. The assessment scores were collected by NCEES data team via Item Response Theory (IRT) which assessed the children's overall proficiency in each area, rather than how many items were answered correctly or incorrectly (Tourangeau, Nord, Lê, Sorongon, & Najarian, 2009). The use of IRT makes it possible to capture a pattern of student responses over time, so that the longitudinal gains can be measured without having had to administer the same instrument during each assessment. In the ECLS-K dataset, common items were used on the different assessment instruments, and the items were arranged in such a way that allowed for scores to be organized using the same scales. This process produced estimates of the number of items that each student would have answered correctly had every assessment included all of the items (Tourangeau, Nord, Le, Pollack, & Atkins-Burnett, 2006). A major benefit of IRT scores is that the results are scaled so that they can be compared over time.

The reading assessment focused on the basic skills of literacy and reading. The reading items in the assessment were designed to measure the following: print familiarity, letter recognition, beginning and ending sounds, rhyming sounds, word recognition vocabulary (i.e., receptive vocabulary), and comprehension (Tourangeau, Nord, Le, Pollack, & Atkins-Burnett, 2006; Tourangeau, Nord, Lê, Sorongon, & Najarian, 2009).

The math assessment was designed to measure basic math skills. The areas of assessment for the math instrument were: conceptual knowledge, procedural knowledge, and problem solving (Tourangeau, Nord, Le, Pollack, & Atkins-Burnett, 2006; Tourangeau, Nord, Lê, Sorongon, & Najarian, 2009). In previous studies, items from both the math and reading assessments have been used in the investigations of associations of variables such as parent

involvement, and various demographic characteristics with academic achievement (Brown, Tanner-Smith, Lesane-Brown, 2009; Brown, Tanner-Smith, Lesane-Brown, & Ezell, 2007).

The science assessment was designed to measure understanding of the physical and natural world, as well as students' ability to draw age/grade-appropriate inferences, and to comprehend scientific relationships. In addition, 5th and 8th grade students were also asked to complete some interpretation of scientific data, and formulation of hypotheses and plans for investigating select questions (Tourangeau, Nord, Le, Pollack, & Atkins-Burnett, 2006; Tourangeau, Nord, Lê, Sorongon, & Najarian, 2009)..

The reliability for the IRT measures was reported by NCES to be between .87 and .96 for each reading assessments at each round of data collection, between .91 and .95 for math assessments at each round, and between .84 and .87 for the three rounds during which science assessment data was collected (NCES, 2006). For the current study, the Cronbach's alphas for the applicable rounds were .93 for reading, .95 for math and .87 for science in the sixth wave (fifth grade); and .87 for reading, .92 in math and .84 in science for the seventh wave (eighth grade).

Self-Efficacy

Self-efficacy was measured with items from a short Self-Description questionnaire (SDQ), that was administered during the springs of 2002, (fifth wave – third grade), 2004 (sixth wave - fifth grade) and 2007 (seventh wave - eighth grade). For the current study, the sixth wave SDQ measure was used. The SDQ is composed of 42 statements. Each statement focuses on children's perceptions of their competence in one of the following areas: reading, mathematics, and a general "all school subjects" area. Children were also asked to rate their perceptions of competence and popularity with their peers, as well as their self-views regarding problem

behaviors with which they may struggle. The SDQ reading and math scales include eight items each that assess children's perceptions of their reading and math grades, the level of difficulty of the reading and math work, and their interest in and enjoyment of reading and math. These items were compiled into one for each subject (math and reading) which represented the students' overall interest/competence in each subject. The school scale consists of six items assessing how well they feel they can do in "all school subjects" as well as their expressed enjoyment of "all school subjects." These items were compiled into one which represented the students' overall interest/competence in all subjects. The peer scale includes six items on how easily the children feel they make friends and get along with other children as well as their perception of their popularity. These items were also compiled into one which represented the students' overall interest/competence in peer relations. The anger/distractibility SDQ scale has six items addressing externalizing problem behaviors such as fighting and arguing, talking and/or disturbing others, and self-perceived distractibility. The sad/lonely/anxious scale includes eight items that focus more on internalizing problem behaviors such as feeling sad, lonely, ashamed of mistakes, frustrated, and/or worrying about school and friendships. These subscales were not included in this study. The SDQ uses a four-point scale: "*not at all true*," "*a little bit true*," "*mostly true*," and "*very true*."

Many of the items on the SDQ closely reflect Albert Bandura's conceptualization of self-efficacy within the Social Cognitive Theory (Bandura, 1986), and are similar in wording to items from the self-efficacy scale created by Albert Bandura (1990). According to Bandura, Barbaranelli, Caprara, and Pastorelli (1996), self-efficacy beliefs vary across domains of functioning, and efficacy beliefs about peer relations and self-regulation can directly affect functioning in the academic (and other) domains. Thus, the use of an instrument that assesses all

of these areas is intended to provide a very inclusive picture of the mediatory impact of self-efficacy. Because academic activities are completed within a setting that also includes on-going social interaction, self-efficacy in the area of peer relations is likely to have a direct impact on students' academic efficacy (Schunk & Pajares, 2002). Scholars have found that school children's self-efficacy is strongly influenced by their peers (Schunk & Miller, 2002). This is particularly relevant for pre-adolescents and adolescents. With this justification, the peer relations subtest was included as a component of overall self-efficacy. For this study, four (previously summed) items were used that assess the referenced domains. The reliability of the all subtests of the SDQ ranges from .78 to .94. For the current study, the Cronbach's alphas were as follows: .79 for the reading subtest; .90 for math; .81 for the "all subjects" items; and .72 for the peer relations items.

Covariates

Based on previous research and theoretical propositions, the following variables were identified as control variables: Gender; socioeconomic status (SES); type of school attended by child; type of kinship/relationship shared with resident "mother;" type of kinship/relationship shared with the resident "father;" marital status of resident parents; and the parental academic expectations for the child.

Missing Data

As is common when using large, nationally representative datasets, there were missing data throughout the rounds of the ECLS-K dataset. For this study, missing data were addressed using Full Information Maximum Likelihood (FIML) estimation. This method was chosen because it is the most appropriate method for the type of statistical analyses utilized in this study (Enders, 2006). FIML allows for the use of all available data, and provides parameter and

standard error estimates that are less biased than those provided by other commonly used methods for missing data, such as list-wise deletion, pairwise deletion, and mean substitution (Acock, 2005; Schafer & Graham, 2002). Use of FIML results in data that are based on the observed data points and allows for more accurate estimation.

Data Analysis

The analyses for this study were aimed at evaluating the following hypotheses:

- 1.) Higher levels of racial/ethnic socialization will result in higher academic achievement for African American school children.
- 2.) Higher racial/ethnic socialization will result in higher self-efficacy for African American school children.
- 3.) Higher self-efficacy will result in higher academic achievement for African American school children.
- 4.) Self-efficacy will mediate the relationship between racial/ethnic socialization and academic achievement for African American school children.

After obtaining descriptive statistics and correlations for the purpose of assessing significant correlations and instances of multicollinearity among variables of interest as well as identified covariates, Structural Equation Modeling (SEM) was then used to test the proposed hypotheses. This method of analysis was chosen because it is the more common method for testing mediated effects longitudinally (Baron & Kenny, 1986; Li, 2011). Using SEM, each path – racial/ethnic socialization (RES) → academic achievement; RES → self-efficacy (SE), and SE → academic achievement – was directly tested. Another benefit of using SEM is that measurement error was controlled for by incorporating a measurement model into the structural equation model.

Anderson and Gerbing (1988) suggest a two-step approach to structural equation modeling (SEM). Using this approach allowed for easier identification of where in the model any misfit(s) had occurred. The two steps included generating and running: 1) a measurement model, or confirmatory factor analysis (CFA) which was an examination of factor loadings (the correlations between observed variables and the latent factors); and 2) the full structural model, which included an examination of each of the theoretical relationships between latent variables within the model. During the analysis of the CFA or measurement model, it was possible to modify regression paths, trim the model, and repeatedly run it until the best measurement model was obtained. The same modification options were available when testing the full structural model, only in this step, it was the paths between latent factors that were being examined and modified or removed if that is what needed to happen to improve the model fit. With each modification to regression paths, modification indices were examined in order to evaluate anticipated improvements with the model fit. Once the best fitting full model, with both measurement and structural components, was obtained, the modification indices provided were examined to properly report the final model fit to data.

Assessing the impact of the identified covariates (gender, SES, school type, resident parent type, parent marital status, and parental expectations) on the latent constructs was accomplished by Multiple Indicators and Multiple Causes (MIMIC) modeling. According to Jöreskog and Goldberger (1975), MIMIC models contain at least one latent variable that is simultaneously identified by 1) multiple item indicators or endogenous variables, and 2) multiple causal or exogenous variables such as demographic and/or other background variables. One of the many benefits of MIMIC models is that they allow for the assessment of the associations between measured/observed covariates and unobserved latent constructs, thus providing

indication of the impact of the various background/control variables (Muthen, 1989). In this study, the identified control variables were added into the CFA/measurement model, thus creating a MIMIC model which allowed for assessment of the impact of these background variables on the latent variables of interest, before adding them into the full structural model. Only the covariates with significant interactions with the study variables were added to the full structural model.

The identification of the model must also be ensured when conducting structural equation modeling. Model identification is indicated when there are at least as many observations as there are free parameters in the particular model. This is referred to as degrees of freedom (*df*). According to Kline (2011), the degrees of freedom must be at least zero, for the model to be identified – and with a value of zero, the model would be considered just-identified, as opposed to over-identified ($df < 0$), or under-identified ($df > 0$).

Because testing for mediation also was an important part of these analyses, Baron and Kenny's article (1986) detailing a specific series of for testing for mediation was consulted. According to Barron and Kenny, a variable is considered a mediator if it has a direct impact on an established relationship between two variables – a predictor (RES) and an outcome variable (academic achievement). Due to the complexity of the conceptual model used in this study (more than two measures for each of four latent variables), it was confirmed that SEM was the best method for testing all paths in question. Analysis of Moment Structures (AMOS; Arbuckle, 2013) was used to complete these analyses. AMOS includes several indices that are used to evaluate model fit: Chi square, which is dependent on degrees of freedom, with non-significance indicating good model fit; Comparative Fit Index (CFI) with good model fit indicated by a value greater than .9; and RMSEA or Root Mean Square Error of Approximation for which the value

should ideally approach 0, or be above .06 (Hu & Bentler, 1999; Kline, 2011). With regards to the chi-square statistic, it was important to note that more so than the other indices, chi-square is sensitive to sample size and to assumptions about distribution. In his classic paper about goodness of fit, Cochran (1954) stated that in very large samples, even small deviations from the null hypothesis can be detected, and are likely to result in a significant (undesired) chi-square value. Due to this vulnerability to sample size, and the large size of the current sample, the chi-square statistic was considered unstable, as it was more likely to have detected small differences and that would result in these differences being significant (when non-significance is the goal). For this reason, the CFI and RMSEA were closely examined and relied upon for more reliable indices of model fit.

Power

Power is needed in order to prevent a false null hypothesis, also referred to as a Type II error. According to Kline (2011), there should be attention placed on having an adequate number of participants to make sure that the model test is accurately conducted. Put more simply, this means that there must be an adequate number of participants to accurately test the proposed model, as adequate power indicates higher likelihood that one will detect a reasonably correct model (Kline, 2011). It is recommended that sample sizes using SEM be at least $N = 200$, or that there be at least fifty more than four times the number of variables. With a sample size of over 3200, and more than 30 total variables (observed and unobserved) adequate power was achieved in this study.

Based on previous research, the following hypotheses and model were constructed to illustrate the conceptual model that was theoretically proposed for the current study:

Hypotheses

- 1.) Higher levels of racial/ethnic socialization will result in higher academic achievement for African American school children.
- 2.) Higher racial/ethnic socialization will result in higher self-efficacy for African American school children.
- 3.) Higher self-efficacy will result in higher academic achievement for African American school children.
- 4.) Self-efficacy will mediate the relationship between racial/ethnic socialization and academic achievement for African American school children.

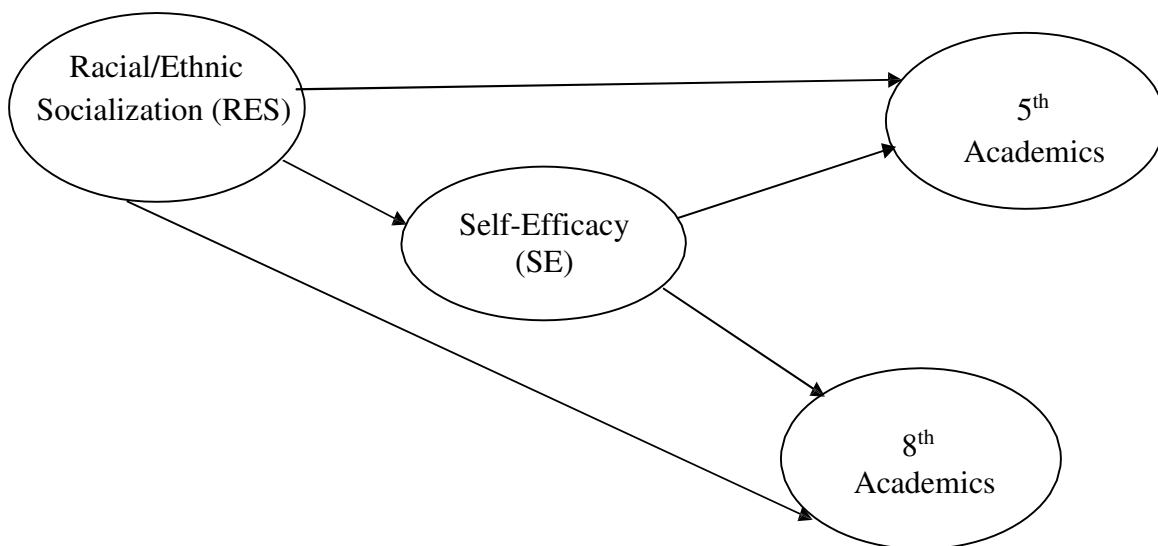


Figure 1 *Conceptual Model*

CHAPTER FOUR

STUDY RESULTS

The associations specified in the four identified hypotheses were examined using SPSS (IBM, 2013) and AMOS (Arbuckle, 2013). SPSS was used to complete the preliminary analyses, including the descriptive information to be detailed below. With AMOS, it was possible to appropriately address missing data, complete analysis of the measurement models (CFA), complete analysis of the full structural model, test for mediation, and complete analysis of the MIMIC model.

Preliminary Analyses

Prior to conducting analyses on the measurement model (CFA), and structural model, several preliminary analyses were completed. First, the descriptive information for all variables – means, standard deviations, skewness, and kurtosis – were examined. Skewness and kurtosis are two important indices of normality, and it is suggested that the inclusion of these measures can provide a much more accurate representation of deviation from normality than just reporting the more common mean, variance, and standard deviation (Hopkins & Weeks, 1990). West, Finch, and Curran (1995) recommend a skewness between -2 and 2, and kurtosis between -7 and 7. Based on these criteria, the current data appeared to be approximately normal (see Table 2). The only variables which fell outside the above stated criteria were control variables which were later removed from the primary analyses.

The bivariate correlation matrices of all measured variables were computed in order to examine the relationships between variables of interest, as well as the covariates. The matrices were examined to look for significant relationships between variables, and to identify instances of multi-collinearity, which are indicated by correlations that are $\geq .80$. (See Tables 3, 4, and 5).

Descriptive Statistics for Measured Variables (N = 3224)

Construct / Variable	<i>M</i>	<i>SD</i>	Range	Skewness	Kurtosis
RES					
Discuss Heritage	3.20	1.29	1 - 5	-.299	-.964
Participate in Cultural Events	2.50	1.15	1 - 5	.203	-.757
Discuss Religion	3.87	1.32	1 - 5	-.966	-.280
SE					
SDQ-Reading	3.02	.744	1 - 4	-.535	-.562
SDQ-Math	2.97	.831	1 - 4	-.513	-.819
SDQ-All Subjects	2.71	.687	1 - 4	-.171	-.659
SDQ-Peer Relations	3.11	.651	1 - 4	-.719	.042
5th Academics					
Reading IRT	134.92	26.04	65 - 200	-.196	-.346
Math IRT	106.16	24.44	51 - 166	-.087	-.634
Science IRT	52.56	14.89	21 - 99	.210	-.607
8th Academics					
Reading IRT	151.01	29.44	87 - 207	-.215	-.865
Math IRT	125.52	23.03	67 - 171	-.240	-.534
Science IRT	70.64	16.70	28 - 108	.261	-.681
Covariates					
Gender	1.5	.50	1 - 2	.015	-2.00
SES	2.44	1.31	1 - 5	.464	-.987
School Type	3.72	.787	1 - 4	-2.764	6.18
Mother Type	1.54	1.63	1 - 7	2.908	6.73
Father Type	4.71	2.78	1 - 7	-.473	-1.69
Parents' Marital Status	3.42	2.04	1 - 7	.038	-1.43
Parental Expectations	4.14	1.27	1 - 6	-.110	-.689

In examining the correlations between the variables of interest, it was readily apparent that most of the significant correlations were between variables that were all theoretically predicted by the same latent construct (see Table 3). Multi-collinearity was only evident within the relationships between the academic measures for the same subjects in 5th and 8th grades; however since these were dependent variables, and the high correlations were expected, the multicollinearity was ignored. Several other variables were significantly related to the predictor and mediating variables; however all of these correlations were relatively small (lower than .25).

Correlations between the variables of interest showed many significant relationships, but no signs of multicollinearity (See Table 4). All of the covariates had significant relationships with the outcome variables for this study (academic achievement) with the exception of the type of relationship with resident “mother.” Specifically, all significant correlations between the RES indicators (predictor) and the academic outcome indicators (reading, math and science outcomes) indicated positive relationships. These relationships were in the expected directions which have been supported in previous literature, and predicted for the current study outcomes.

Examining the matrix for the correlations between covariates was valuable because identification of multicollinearity between any of these variables would have been an early indication of problems with predictive accuracy. However, there was no multicollinearity identified amongst the covariates (See Table 5).

Table 3*Correlation Matrix for Major Variables of Interest (N = 3224)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. RES - Discuss Heritage	–	.											
2. RES – Cultural Events	.43**	–											
3. RES – Discuss Religion	.38**	.31**	–										
4. SE – SDQ-Reading	.07*	.03	.07*	–									
5. SE – SDQ-Math	-.06	-.02	.04	.11**	–								
6. SE – SDQ-All Subjects	.05	.01	.03	.55**	.51**	–							
7. SE – SDQ-Peer Relations	.02	-.01	.07*	.34**	.24**	.42*	–						
8. 5 th Reading	.10**	.07*	.06	.18**	.03	.06	.05.	–					
9. 5 th Math	.06	.05	.03	-.03	.24**	.09*	.02	.74**	–				
10. 5 th Science	.05	.07	.06	.07	.08*	.02	.02	.75**	.73**	–			
11. 8 th Reading	.11**	.09*	.06	.16**	.03	.09**	.05	.76**	.63**	.66**	–		
12. 8 th Math	.06	.04	.01	.01	.23**	.09**	.03	.71**	.83**	.69**	.70**	–	
13. 8 th Science	.08*	.03	.05	.06	.07	.06	.05	.72**	.68**	.76**	.71**	.73**	–

* $p \leq .05$; ** $p \leq .01$ *** $p \leq .001$

Table 4*Correlations Matrix for Major Variables and Covariates (N = 3224)*

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
14. Child Gender	.07*	.02	.05	.11**	-.12**	.05	.02	.03	-.13**	-.17**	.09*	-.78*	-.10**
15. Family SES	.16**	.17**	.16**	.01	.03	.02	.01	.35**	.33**	.37**	.34**	.35**	.33**
16. Type of School	-.60	-.09*	-.07*	.01	.03	-.01	-.03	-.18**	-.11**	-.16**	-.18**	-.16**	-.17**
17. Mother type	-.03	-.06	.07	.01	-.07	-.01	-.02	.04	-.02	.02	.02	-.04	-.02
18. Father type	-.04	-.07*	-.06	.06	-.02	.01	.01	-.13**	-.14**	-.12**	-.13**	-.15**	-.13**
19. Parent Marital Status	-.03	-.06	-.07	.05	-.04	.01	-.01	-.08*	-.12**	-.09**	-.11**	-.16**	-.14**
20. Parental Expectations	.14**	.17**	.13**	.08*	-.01	.03	.01	.21**	.16**	.19**	.20**	.17**	.18**

* $p \leq .05$; ** $p \leq .01$ *** $p \leq .001$

1 = RES-Discuss Heritage; 2 = RES-Cultural Events; 3 = Discuss Religion; 4 = SDQ-Reading; 5 = SDQ-Math; 6 = SDQ-All Subjects;
 7 = SDQ-Peer Relations; 8 = 5th Reading; 9 = 5th Math; 10 = 5th Science; 11 = 8th Reading; 12 = 8th Math; 13 = 8th Science

Table 5*Correlation Matrix for Control Variables (N = 3224)*

(Control) Variables	14	15	16	17	18	19	20
14. Child Gender	–						
15. Family SES	-.01	–					
16. Type of School	-.01	-.30**	–				
17. Mother type	.01	-.07**	.05**	–			
18. Father type	-.03	-.32**	.14**	.11**	–		
19. Parent Marital Status	-.02	-.33**	.16**	.43**	.64**	–	
20. Parental Expectations	.03	.32**	-.16**	-.06**	-.12**	-.17**	–

* $p \leq .05$; ** $p \leq .01$ *** $p \leq .001$

Model Testing

To examine the associations between Racial/Ethnic socialization and the Self-efficacy and Academic Achievement of African American children in this study, several steps were taken so that the best fitting, most parsimonious model could be identified. These steps included examining measurement models for each of the four identified latent factors, full structural regression models, and finally, the MIMIC model.

Confirmatory Factor Analysis

Confirmatory Factor Analyses were conducted using AMOS in order to examine how each item loaded onto their respective factors. Construct validity is commonly determined by examining how a particular construct predicts the observable items associated with it (Kline, 2011). Factor loadings were examined for each item, with the desired value being .30 or above (Kline, 2011). It was important to note that a factor loading of .30 would indicate that the factor

explains only 9% of the variability of the indicator in question; since that leaves a lot of variability which is residual or unexplained error, anything less than .30 would have been considered lacking in predictive power. For these analyses, standardized factor loadings were between .54 and .87, so all loadings were acceptable and significant at $p \leq .001$ (see Figure 2).

A four-factor model was hypothesized to be confirmed in the measurement model. Overall, the model to data fit was acceptable. As expected, the chi-square value was significant, $\chi^2 (59, N = 3,224) = 820.55, p = .001$. However, the CFI, with a value of .91 and the RMSEA value of .06 both indicate a just-acceptable model-fit to data. Please see Figure 2.

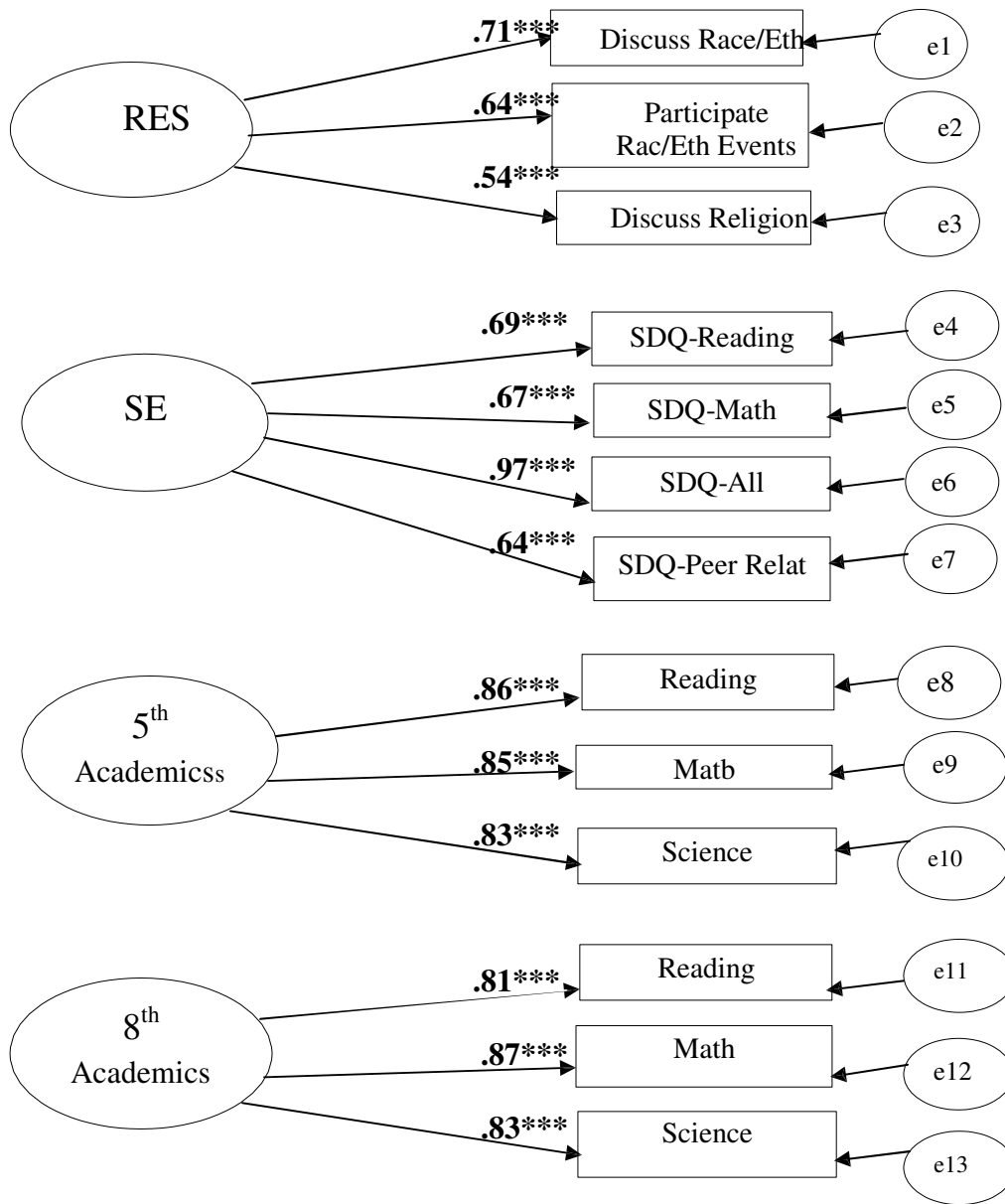
Full Structural Model

After determination of the factor structure and significant control variables, the analysis of the full structural model (including all hypothesized paths; see Figure 3) was conducted in AMOS (Arbuckle, 2013). Model fit indices reflected an acceptable fit to data as evidenced by the following: Although the chi-square statistic was significant, $\chi^2 (53, N = 3,224) = 402.661, p = .001$; the CFI and the RMSEA both indicated good model fit to data (CFI = .96; RMSEA = .05).

To ensure testing for direct and indirect (mediating) effects, the steps indicated by Baron and Kenny (1986) were adhered to. Each of the four established hypotheses were used to guide the interpretation of these results, as the identified hypotheses for this study closely parallel the steps laid out in Barron and Kenny's quintessential article on mediation (1986).

Hypothesis 1: Higher levels of racial/ethnic socialization will result in higher academic achievement for African American school children.

This hypothesis related directly to Barron and Kenny's (1986) first suggested step: find a direct relationship between the predictor variable and the outcome variables. The standardized estimates of the paths from Racial/Ethnic Socialization (RES) to both fifth and eighth grade



$\chi^2 = 811.70; p = .001; CFI = .91; RMSEA = .06.$
 *** $p \leq .001$

Figure 2. Four-Factor CFA/Measurement Model

academic achievement were significant in the model. For RES 5th: $\beta = .10, p = .001$. For the path from RES 8th: $\beta = .10, p = .01$ (see Figure 3). Specifically, results indicated that, as hypothesized, African American school children who had higher levels of RES tended to have higher academic achievement in both 5th and 8th grades.

Hypothesis 2: Higher racial/ethnic socialization will result in higher self-efficacy for African American school children.

Barron and Kenny suggest that the second step should be establishing a direct relationship between the predictor and the mediator variable. For this association, the standardized regression weight estimate of the path from Racial/Ethnic Socialization (RES) to Self-Efficacy (SE) was significant at the $p = .05$ level: $\beta = .08$ (see Figure 3). Specifically, results indicated that, as hypothesized, African American school children who had higher levels of RES tended to have higher SE (self-efficacy).

Hypothesis 3: Higher self-efficacy will result in higher academic achievement for African American school children.

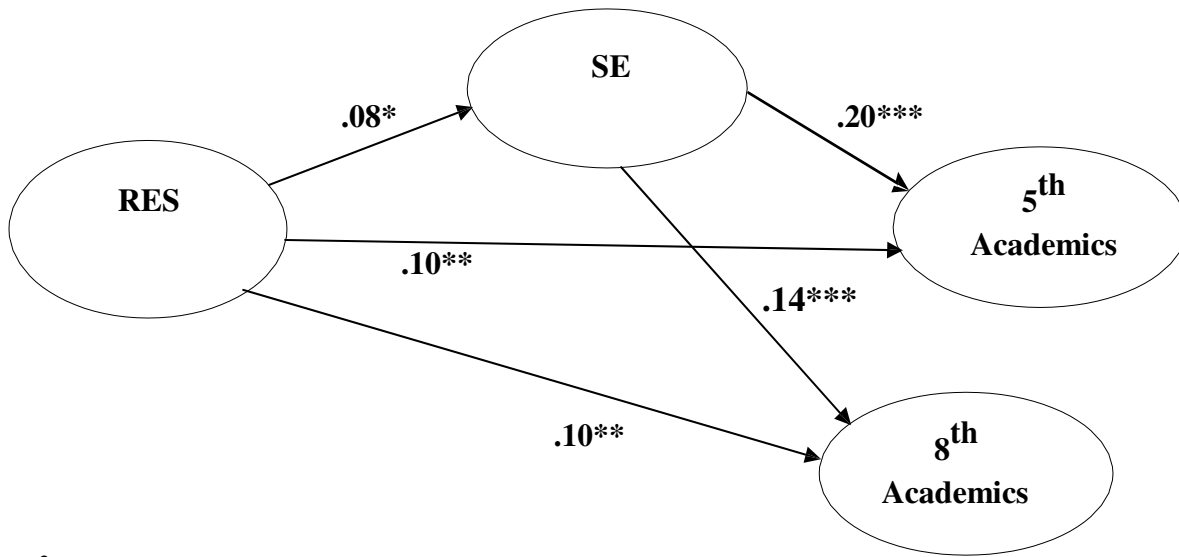
For the third step in the Barron and Kenny (1986) recommendations, one must find a relationship between the identified mediator and the outcome variable(s) – which is specifically hypothesized in the third hypothesis of this study. The standardized regression estimates of the paths from the study mediator, Self-Efficacy (SE), to both fifth and eighth grade academic achievement were significant in the full model at the $p = .001$ level. For SE 5th: $\beta = .20, p = .001$. For the path from SE 8th: $\beta = .14, p = .001$ (see Figure 3). Specifically, results indicated that, as hypothesized, African American school children who had higher levels of SE tended to have higher academic achievement in both 5th and 8th grades.

Hypothesis 4: Self-efficacy will mediate the relationship between racial/ethnic socialization and academic achievement for African American school children.

Mediation

Barron and Kenny's fourth and final step required assessing whether or not the identified mediator variable – SE – fully accounts for the relationship between the predictor (RES) and the outcome variables (fifth and eighth grade academics). This would be evaluated by the examination of direct and indirect effects between Racial/Ethnic Socialization (RES) and Academics. The standardized direct, indirect, and total effects (reported as standardized coefficients) were as follows: For the relationship between RES and fifth grade academics, the direct effects were .098, indirect effects were .016, and total effects were .11. Between RES and eighth grade academics, the direct effects were .099, indirect effects were .012, and total effects were .11. According to Baron and Kenny (1986), the lower standardized effects were suggestive of partial mediation; however, to establish significance, more testing was necessary.

To assess for significance, the Sobel Test (1982; as cited by Baron & Kenny, 1986) was used. The goal of the Sobel Test was to assess whether or not the indirect path from RES to Academics was statistically significantly different from zero. The indirect path from RES (IV), to 5th grade academics (DV 1) – through SE (mediator) – appeared to be approaching significance, at $p = .06$. However, it was technically insignificant. The indirect path from RES (IV), to 8th grade academics (DV 2) – through SE (Mediator) – was also statistically insignificant, at $p = .11$.



$\chi^2 = 402.66.70; p \leq .001; CFI = .96; RMSEA = .05.$
 $***p \leq .001$

Figure 3. Full Structural Model

Table 6

Direct, Indirect, and Total Effects for IV to DVs

Outcome Variable	Direct Effects	Indirect Effects	Total Effects
5 th grade Academics	$.10^{**}$.016	.11
8 th grade Academics	$.10^{**}$.012	.11

$*p \leq .05; **p \leq .01 ***p \leq .001$

MIMIC Model

To determine the relationships between identified covariates/demographic variables and the key variables in this study, a Multiple Indicators and Multiple Causes Model was tested. The following seven covariates were added into the full structural model: gender, SES, school type, resident mother type, resident father type, parent marital status, and parental expectations. The latent factors representing the major interests for this study were regressed on the covariates (see

Table 7). The model-to-data fit, including all of the covariates, was good (with the exception of the significant chi square value): $\chi^2 (116, N = 3,224) = 686.010, p = .001$; CFI = .953; RMSEA = .039. Examinations of the standardized regression weights revealed that many of the covariate paths were insignificantly associated with the main study variables (see Table 7), so these were removed from the model; this resulted in the following covariates being removed: gender, school type, mother type, and father type). After the removal of all insignificant covariate paths, the fit indices were as follows: $\chi^2 (84, N = 3,224) = 463.26, p \leq .001$; CFI = .961; RMSEA = .037. These values – again with the exception of the chi square value – indicated adequate/good model fit. Please see Figure 4.

The resulting MIMIC model revealed that – contrary to the structural equation model – the impact of the significant control variables led to the paths from RES SE and RES academics in both fifth and eighth grades being insignificant. During the respecification process as recommended by Kline (2011), it was noted that this change in significance was directly associated with controlling for socioeconomic status (SES). This indicated that SES may have mediating effects on the relationship between RES (Racial/Ethnic Socialization) and Academic Outcome. However, removing these paths did not significantly change the data fit to model: $\chi^2 (87, N = 3224) = 465.26; p \leq .001$; CFI = .961; RMSEA = .037, so they were left in (Figure 4).

The Sobel test was used again to assess for significance in the final MIMIC model. The addition of significant control variables have proven to be influential, so it was important to assess whether or not the respecification of the model had resulted in the indirect path from RES to Academics being statistically significantly different from zero. In this final model, when controlling for SES, parental expectations, and for marital status (on SE) the indirect path from RES (IV), to 5th grade academics (DV 1) – through SE (mediator) – was insignificant with a p

value of .99. The indirect path from RES (IV), to 8th grade academics (DV 2) – through SE (Mediator) – was also statistically insignificant, at the same level: $p = 0.99$.

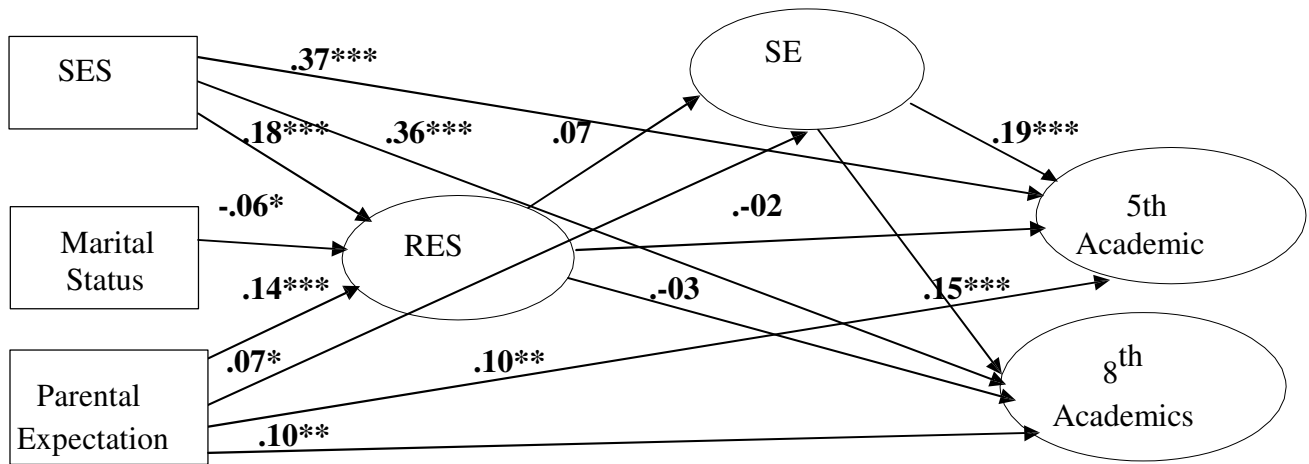
Table 7

MIMIC Model representing Covariate Paths on the Study Factors

Factor	Covariates	β	S. E.	p
Racial/Social Socialization (RES)	Gender	.019	.041	.395
	SES	.187***	.018	$\leq .001$
	School Type	.002	.027	.946
	Mother Type	.038	.015	.173
	Father Type	.037	.011	.260
	Marital status	-.097**	.015	.006
	Parental Expectations	.137***	.019	$\leq .001$
Self-Efficacy (SE)	Gender	.028	.041	.436
	SES	-.029	.017	.455
	School Type	.030	.027	.411
	Mother Type	-.070	.013	.064
	Father Type	.015	.009	.746
	Marital status	-.012	.014	.822
	Parental Expectations	.077*	.016	.032
Fifth grade Academics	Gender	-.042	1.136	.122
	SES	.341***	.522	$\leq .001$
	School Type	-.020	.791	.503
	Mother Type	.056	.416	.087
	Father Type	-.076	.293	.055
	Marital status	-.022	.450	.073
	Parental Expectations	.095**	.514	.002
Eighth grade Academics	Gender	.004	1.129	.884
	SES	.308***	.519	$\leq .001$
	School Type	-.061	.785	.056
	Mother Type	.048	.413	.168
	Father Type	-.053	.292	.201
	Marital status	-.084	.448	.073
	Parental Expectations	.095**	.516	.005

S.E. – Standard Error

* $p \leq .05$; ** $p \leq .01$ *** $p \leq .001$



$\chi^2 = 463.26; p \leq .001; CFI = .961; RMSEA = .037$

* $p \leq .05$; ** $p \leq .01$ *** $p \leq .001$

Figure 4. Final MIMIC Model with Significant Covariate Paths and Full Structural Model

CHAPTER FIVE

DISCUSSION

This study was conducted to allow for the examination of the relationships between ethnic/racial socialization in early childhood, self-efficacy and the later academic achievement of African American children. Because of heightened attention on the academic performance of African American school children, the examination of the relationships among correlates like those in this study can offer valuable information to professionals from multi-disciplinary backgrounds (Barton & Coley, 2010; Green, 2008; Marcon, 1999). Major findings of this study can be summarized as follows: 1) Racial/ethnic socialization (RES) was positively associated with academic achievement; 2) Racial/ethnic socialization (RES) was positively associated with self-efficacy; 3) Self-efficacy (SE) was positively and significantly associated with academic outcome; 4) Family factors, namely socioeconomic status (SES), and parental expectations were positively and significantly associated with racial/ethnic socialization (RES); 5) The covariate associations mentioned above negatively impacted the relationship between RES and academic achievement, and between RES and SE (self-efficacy), so that RES had no significant impact on mediator or outcome variables; 6) Self-efficacy was not a significant mediator of the relationship between RES and academic achievement.

The study was framed in the perspective of Albert Bandura's Social Cognitive Theory, and tested the following hypotheses:

- 1.) Higher levels of racial/ethnic socialization will result in higher academic achievement for African American school children.
- 2.) Higher racial/ethnic socialization will result in higher self-efficacy for African American school children.

3.) Higher self-efficacy will result in higher academic achievement for African American school children.

4.) Self-efficacy will mediate the relationship between racial/ethnic socialization and academic achievement for African American school children.

According to Albert Bandura (1995), if adolescents' environments are composed of conditions that are supportive of positive efficacy beliefs, then those adolescents are more likely to achieve adaptive functioning during this already challenging time in their lives. With this in mind, promotion of the positive socialization of African American youth is even more salient. While positive socialization in itself has many benefits – among which is the fact that it has been found to support academic performance (Grusec & Hastings, 2007), racially/ethnically relevant socialization is supported by theories such as the Critical Race Theory (Delgado & Stefancic, 2001), Jean Phinney's Model of Ethnic Identity Development (1990), and Erikson's psychosocial stages of development (1970). As such, the findings of this study – which provided some support for the hypotheses developed – are in line with many previous findings and theoretical propositions.

Racial/Ethnic Socialization and Academic Achievement

The first study hypothesis was supported in the analyses – initially. The Full Structural Model showed that Racial/Ethnic Socialization (RES) was significantly related to the academic achievements of African American school children. This significant relationship was present for the associations with both fifth and eighth grades. However, when the model was respecified as a Multiple Indicators and Multiple Causes (MIMIC) model, which allowed for adding in of control variables, the significant relationships were no longer present. The level of significance went from .20 at $p \leq .001$ for RES 5th grade Academics and .14 for RES 8th grade Academics at

$p \leq .001$; to $-.02$ at $p = .641$ for RES 5th grade Academics and $.14$ for RES 8th grade Academics at $p = .522$. This very notable change in significance was a probable indication of a long-standing finding from many previous studies – that socioeconomic status has a significant impact on academic achievement (Brooks-Gunn et al. 2003; Coleman et al., 1966; Sirin, 2005; Wu & Qi, 2006). Another influence on this resulting insignificance was the fact that parental expectations were also being controlled for in the final MIMIC model. Previous studies have also found significant relationships between the messages of expectations that parents communicate to their school children and the children's academic achievement (Gordon & Cui, 2012; Lesane-Brown, 2006; Murry et al., 2009). Nevertheless, it is noteworthy to emphasize that for this study, positive correlations and regression coefficients indicate a significant association between RES and achievement.

Racial/Ethnic Socialization and Self-Efficacy

The second hypothesis in this study was also affected by the inclusion of control variables. Initially, the Full Structural Model showed a path coefficient between RES and self-efficacy (SE) of $.08$ at a significance level of $p \leq .05$. Upon the addition of the control variables in the final MIMIC model, this path coefficient was altered to $.07$ at $p = .125$. Due to the large sample size and the power associated with it (Kline, 2011), even this small change in the strength of the relationship between RES and SE resulted in loss of significance. Because self-efficacy is related to the messages one receives from those in one's environment (Bandura, 1995), as is racial/ethnic socialization, this result could be representative of previous research which found that children's academic performance is influenced by what others in their lives say and do in relation to academics, so the relationship could have been confounded by this possible overlap. During the process of respecification of the MIMIC model, while removing paths and reassessing impact, it was revealed that it was the influence of marital status (control variable) on

SE which caused the change in the significance. Self-efficacy was the only study variable which was significantly affected by controlling for marital status. While this relationship hasn't received a lot attention in previous literature, the impact of marital status – namely having unmarried, single parents – has been demonstrated to have negative associations with the positive outcomes (academic and otherwise), emotional security and self-views of African American children (Brown, Tanner-Smith, & Lesane-Brown, 2009; Shumow, Vandell, & Posner, 1998; Simons et al., 2006), so since these qualities are closely related to components of self-efficacy (Bandura, 1995), the relationship demonstrated in this study is in agreement with the previous findings.

Self-Efficacy and Academic Achievement

The third study hypothesis was supported in the analyses. The standardized coefficients of the paths from self-efficacy to academic achievement were initially .20 for fifth (5th) grade and .14 for eighth (8th) grade at the $p \leq .001$ significance level. When controlling for SES and parental expectations, these paths changed only slightly: the estimates were .19 for 5th grade, and .15 for eighth 8th grade. Both remained at a significance level of $p \leq .001$. The strength of association between SE and Academics – particularly without the predictive impact of RES or most of the included covariates – was somewhat surprising. While previous research has documented that positive messages about self and abilities are associated with higher levels of academic engagement and desire to perform (Bowman & Howard, 1985; Kerpelman et al., 2007; Murray et al., 2009; Neblett et al., 2006), the influential interaction with other variables has been present in most, if not all of those studies. To have this significant relationship without the predictive influence of other variables provides promising implications for future studies (which will be further discussed in the *Future Research* section).

Self-Efficacy as Mediator

The mediating effects of SE were not found to be significant in either model. While there was some indication of partial mediation in the initial SEM model, once the covariates were added in the MIMIC model, there was no statistical evidence of mediation. No previous research had tested for mediation of SE in a longitudinal study on RES and academics; however, since the items used to measure self-efficacy in this study are directly linked to self-views about academic engagement and ability, the lack of significant mediation in this study goes against research that has demonstrated the influence of self-views and engagement on academic achievement (Bowman & Howard, 1985; Kerpelman et al., 2007; Zimmerman, 2000). This finding suggests that with regards to the main variables in this study, self-efficacy may have more of a moderating effect than a mediating one, and this would be in line with previous studies.

The lack of significant mediation – in addition to the loss of other relationship significance in the full MIMIC model – was unexpected considering the presence of significant and positive correlations; however the impact of the included demographic factors was clearly robust. As previously referenced, many studies have demonstrated the heavy impact of SES, and this study adds even more evidence that the social and economic conditions of African American families are of crucial importance in the pursuit of closure of the academic achievement gap. The other significant covariate – parental expectations – was shown to have a strong link with family SES (the correlation coefficient between SES & parental expectation, which was positive and significant, was the highest among all covariate correlations [see Table 5]). Additionally, other factors that were not examined in this study were very likely at play, such as teacher expectations and judgment of ability, school environment, media influence, and a myriad of other institutional and societal-level constraints. These will be addressed further in the *Future Research* section.

Implications for Marriage and Family Therapists and School-based Professionals

The current research presents many areas of potential value for Marriage and Family Therapists (MFTs) and other professionals who work directly with African American families struggling with academic difficulties. The following section will address some of the many areas for potential benefit of African American school children and their families.

Marriage and Family Therapists

Because the family and the schools are systems in which children develop, MFTs are uniquely equipped to deal with the challenges associated with relational factors and the contextual processes which can impact them. MFTs utilize systemic interventions that incorporate family processes such as socialization and building of self- efficacy, and they are trained to emphasize interactional patterns within the environment of all clients with which they work (American Association for Marriage and Family Therapy, n.d.).

The findings in this study illustrated the value of building children's self-efficacy to support academic achievement. While the findings related to racial/ethnic socialization were not significant when controlling for SES and parental expectations, there was indication of positive association in earlier analyses, and previous studies have found that racial/ethnic socialization and other strengths-based interventions have been successful in increasing African American family functioning (Brown, Liner, Evans, & DeGennaro, 2008; Rodriguez, Cavaleri, Bannon, & McKay, 2008; Sheely & Bratton, 2010; Smalls, 2008). To identify the socialization to which a child has been exposed, it is crucial to gain a clear understanding of the unique context in which the family lives and interacts. Social Constructivist therapies can allow for this contextual understanding, and facilitate reconstruction of positive beliefs and academic expectations. Additionally, the highlighting of strengths within African American families can serve to be a strong protective factor that can improve the academic engagement and outcomes for African

American youth. Solution-focused (deShazer, 1988) and Narrative (White & Epsom, 1990) are two family therapy models that are grounded in the post-modern, social constructivist view that people establish their own subjective perceptions of truth. It is believed that the use of therapy models like these with African American families experiencing academic failure, can encourage positive racial/ethnic socialization that counters the effects of the negative global socialization to which many African Americans are regularly exposed, and help African American families to construct more self-efficacious and empowered views of academics – and therefore cultivate these empowered views in their school-aged children as well.

School Professionals

Higher levels of self-efficacy in the academic context was proven to be significantly associated with higher academic achievements in the current study. Additionally, racial/ethnic socialization was positively associated with academic achievement. These relationships show the value of 1) ensuring that African American youths have positive beliefs about their academic ability and 2) communicating regularly about the cultural complexities that contribute to the identity formation and views (of self and others) of African American school children. While this study looked specifically at family and community-based socialization, teachers and administrators can, and should participate in this necessary discourse as well. This is especially important in the face of research that shows that teacher prejudices and expectations are also linked with academic success of African American and other minority school children (Pringle, Lyons, & Booker, 2010; Sirota & Bailey, 2009; van den Bergh, Denessen, Hornstra, Voeten, & Holland, 2010)

Presently, most of the recent educational policies and academic interventions, such as No Child Left Behind, Race to the Top, class size reduction, Head-start programs, increased technology in the classroom, and drop-out prevention are school-based, outcome-driven

responses (Green, 2008; Marcon, 1999). They also place the majority of the responsibility for achievement on the individual child, rather than viewing the child's academic success (or failure) as a reflection of the shared responsibility between the child's family, school, and wider social group. Most of the current interventions also almost exclusively ignore the familial and societal processes in which the youths' engage, and in which their views about education have been shaped. Findings from this study provide support for the implementation of programs that incorporate the family, and address the contextual factors that affect children's views of themselves, and of academics, along with their beliefs about their ability to be successful.

Limitations

There were several limitations to this study. First, the use of secondary data - the Early Childhood Longitudinal Study - was both a strength and a limitation. The ease of accessibility of this nationally representative sample was quite advantageous. However, the inability to choose/create the questions and the timing of the surveys were definite limitations. The measures used for the RES latent variable - the IV and a major variable of interest - were only asked during kindergarten, so the impact of RES was certainly affected by the years in between the kindergarten data collection, and the collection of data in the fifth and eighth grades. Previous studies focusing on racial/ethnic socialization have used measures that included up to thirty-six items divided into two subscales with four dimensions in each subscale (Brown & Krishnakumar, 2007). The three items in the present dataset were unlikely to have fully captured the concept of racial/ethnic socialization, and this speaks to this result not having been consistent with other research investigating the relationship between racial/ethnic socialization, and academic achievement of African American adolescents. This result suggests that there are other

factors that should be examined as predictors of academic achievement for African American school children.

In the area of statistical analyses, there were limitations related to the choice to use structural equation modeling. While there were benefits to being able to analyze the latent and measured variables simultaneously, another type of analyses may have been better suited to provide information about the academic achievements over time – a longitudinal growth curve. The fact that there was statistically significant influence from self-efficacy that was evident in fifth and eighth grades suggests that a growth curve, which could have looked at the changes in both variables over the transition to middle school, may have been a more revealing analysis.

Theoretically, there were also areas of concern. Although the assumptions of the Social Cognitive Theory are not novel to the areas of parenting or educational outcome, direct use of this theory will be somewhat new in the area of African American parental socialization and academic outcome. Additionally, although this theory may have explanatory power in regards to individual development, the ability to explain family development and the bi-directional nature of parent-child interaction and socialization is less defined. Finally, although the assumptions of this theory are supported in this body of research, a significant weakness of this theory is that it does not specifically address the social development of racial or ethnic minorities. Though it does assert that all learning is social learning, Bandura's Social Cognitive Theory does not directly deal with the fact that race and ethnicity (and gender, etc.) are socially constructed categories, and are therefore subject to deconstruction and reconstruction. Theories such as Phinney's three stage Model of Ethnic Identity Development (1990), Cross's Model of Nigrescence (1971 & 1978), Steele and Aronson's conceptualization of Stereotype Threat (1995), and/or Robert Merton's conceptualization of the Self-Fulfilling Prophecy (1948), can

serve to supplement the Social Cognitive Theory in explaining parental socialization, self-efficacy and academic achievement in African American families.

Future Research

Previous research has established the value of racial/ethnic socialization and self-efficacy in the academic achievement of African American children (Attaway & Bry, 2004; Brown, Linver, Evans, & DeGennaro, 2008; Cooper & Smalls, 2010; Smalls, 2008). There is no question that the academic achievement gap remains, and the need for more options to assist in the closure of this gap continues to be a pressing one. The research has shown that there are significant relationships; however, similar studies are needed with determination of causal direction. More longitudinal studies such as this current one would certainly allow for more in-depth analysis that can establish consistent predictability and perhaps causality, which can be generalized to various groups. In the future, scholars should continue to undertake studies that assess these concepts longitudinally, to continue to address the shortage of these studies within this body of literature.

Because of the complex nature of the concepts of racial/ethnic socialization, and self-efficacy, research should be done to ensure the best available choices for measures of these constructs. Ideally, researchers will be able to meet the need for in-depth measures that are reliable and can be used to accurately gather the information of interest, and can be used for detailed analysis of the dimensions embedded in the concepts of racial/ethnic socialization and self-efficacy. For many African American and other minority-identified school children, identity development is largely racialized, and heavily influenced by negative perceptions and lowered expectations that success may never come without properly understanding and addressing these messages (Cross, 1978; Cross & Vandiver, as cited in Whiting, 2006; Phinney, 1990; Steele &

Aronson, 1995), so valid and reliable measures that really tease out the many complex components are crucial.

As mentioned previously, the use of theory in this body of research was inconsistent. More utilization of theory would help to further validate the effectiveness of the sometimes ambiguous constructs that are used when examining parental socialization behaviors with African American families. The current finding that self-efficacy has direct and significant impact on academic outcomes of African American school-children makes Bandura's Social Cognitive theory a good choice to support on-going research in this area – even with the previously mentioned limitations. In his model of Scholar Identity in Black Males, Whiting (2006) proposes that self-efficacy plays a fundamental role in the way students perform academically, and as the foundation for many other qualities that contribute to high academic performance. He reiterates that Bandura's 1977 conceptualization of the role self-efficacy in the academic setting “cannot be ignored or trivialized” (Whiting, 2006, p. 224). Conscious effort should be made, however, to use supplementary theoretical support that fills the gaps left by the Social Cognitive theory (see the *Limitations* section).

Studies that examine therapeutic interventions aimed at specifically addressing socialization needs of African American and other minority families (such as the social constructivist MFT theories mentioned previously) would also be valuable. Finally, the availability of funding so that more research completed that will create more access to national, multi-region, representative samples is necessary for the results of these studies to be generalizable. As this body of research continues to grow and receive more attention, there will be more useful implications for parents, schools, and policy.

Conclusion

This study examined the relationship between racial/ethnic socialization and academic achievement in African American school children. The mediating effects of self-efficacy were also examined. Using a nationally representative sample, the associations between the identified variables were evaluated using structural equation modeling. Results indicated that the relationships between the identified variables are quite complex, with additional covariates playing a notable role in final modelling. Ultimately, the hypothesis that higher racial/ethnic socialization would be associated with higher academic achievement was not supported. Nor was the hypothesis that racial/ethnic socialization would be associated with self-efficacy. The significant covariates SES and parental expectations proved to be quite influential on these paths. However, the hypothesized relationship between self-efficacy and academic achievement was found to be significant, even when controlling for SES, parental expectations, and marital status. Implications and potentially advantageous interventions for family therapy and school-based services were provided. Finally, suggestions for future research were given that would expand this body of research and provide more strengths-focused, empowering strategies to support African American families as they work to help their students close the long-standing academic achievement gap.

APPENDIX A
IRB APPROVAL



Office of the Vice President for Research
Human Subjects Committee
Tallahassee, Florida 32306-2742
(850) 644-8673 · FAX (850) 644-4392

APPROVAL MEMORANDUM

Date: 12/05/2013

To: Cicely Brantley [REDACTED]

Address: [REDACTED]

Dept.: FAMILY & CHILD SCIENCE

From: Thomas L. Jacobson, Chair

Re: Use of Human Subjects in Research
The Relationship Between Early Familial Racial/Ethnic Socialization and Academic Outcome of African American Students and the Mediating Effects of Self-Efficacy: A Longitudinal Analysis

The application that you submitted to this office in regard to the use of human subjects in the proposal referenced above have been reviewed by the Secretary, the Chair, and two members of the Human Subjects Committee. Your project is determined to be Exempt per 45 CFR § 46.101(b)4 and has been approved by an expedited review process.

The Human Subjects Committee has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval does not replace any departmental or other approvals, which may be required.

If you submitted a proposed consent form with your application, the approved stamped consent form is attached to this approval notice. Only the stamped version of the consent form may be used in recruiting research subjects.

If the project has not been completed by 12/04/2014 you must request a renewal of approval for continuation of the project. As a courtesy, a renewal notice will be sent to you prior to your expiration date; however, it is your responsibility as the Principal Investigator to timely request renewal of your approval from the Committee.

You are advised that any change in protocol for this project must be reviewed and approved by the Committee prior to implementation of the proposed change in the protocol. A protocol change/amendment form is required to be submitted for approval by the Committee. In addition, federal regulations require that the Principal Investigator promptly report, in writing any unanticipated problems or adverse events involving risks to research subjects or others.

By copy of this memorandum, the chairman of your department and/or your major professor is reminded that he/she is responsible for being informed concerning research projects involving human subjects in the department, and should review protocols as often as needed to insure that the project is being conducted in compliance with our institution and with DHHS regulations.

This institution has an Assurance on file with the Office for Human Research Protection. The Assurance Number is IRB00000446.

Cc: Lenore McWey <lmrwey@fsu.edu>, Advisor
HSC No. 2015.11818

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BIOGRAPHICAL SKETCH

Cicely Walker Brantley was born and raised in Sylvester, GA. Cicely attended Florida A&M University where she obtained a Bachelor's Degree in Psychology with a minor in music in 1995. She completed a Master's degree in Music Therapy at Florida State University in 2003, and both Master's and Specialist in Education degrees in Counseling and Human Systems, in 2006, also from Florida State University. Cicely previously worked in the K-12 public schools as both an elementary music teacher, and a school counselor. Cicely has also provided community- and home-based family therapy and counseling as an independent contractor for local agencies.

Cicely began the doctoral program in Marriage and Family Therapy in the Fall of 2009. During her time in the program, Cicely was awarded the Florida Education Fund's McKnight Doctoral Fellowship, and the American Association for Marriage and Family Therapy Minority Doctoral Fellowship, among other recognitions. Also during her doctoral studies, Cicely assisted and taught classes as a graduate assistant, and served on the research team of Dr. Lenore McWey. Cicely's areas of research include strengthening and protective factors for African-American and at-risk families and students.