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An Integrated Exploration of the Contextual, Relational, and Individual Factors that Impact High School Completion among African Americans

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University

by

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List of Abbreviations

1. The Model: García Coll et al., Integrative Model for the Study of Developmental Competencies in Minority Children
2. SCT: Social Cognitive Theory
3. OR: Odds Ratio
4. CYRM-28: Child and Youth Resilience Measure (28 item version)
5. RRC-ARM-28: Resilience Research Centre - Adult Resilience Measure (28 item version)

Abstract

AN INTEGRATED EXPLORATION OF THE CONTEXTUAL, RELATIONAL, AND INDIVIDUAL FACTORS THAT IMPACT HIGH SCHOOL COMPLETION AMONG AFRICAN AMERICANS

By Lesley Blair Winchester, B.A.

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University

Virginia Commonwealth University, 2020

Major Director: Shawn C.T. Jones, Ph.D., MHS.
Assistant Professor, Counseling Psychology
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African American students are consistently reported as having among the lowest high school graduation rates when compared to other races (U.S. Department of Education, 2018).

While many studies have sought to explore the potential risks of high school dropout, the intention of this study is to examine the factors that support the exemplary resilience of those students who do complete high school. The present study adopts the framework of García Coll et al.'s, (1996) integrative model of developmental competencies in minority children, as it seeks to identify whether and how contextual (spiritual, educational, cultural); relational (caregiver psychological and physical relationship quality); and individual factors (academic self-efficacy) influence African American individuals to complete high school. To analyze the implications of the research questions, I propose the use of a double moderation and moderated moderation approach to determine the influence of the predictors on high school completion. The findings of this study provided partial support for the associated hypotheses. Specifically, although the dimension of contextual resilience did not emerge as a unique predictor of African American students' high school completion, the interaction between contextual factors and relational

factors revealed that at higher levels of relational factors, increased contextual factors are associated with an increased likelihood of high school completion. Importantly, the findings also suggest that at lower levels of relational factors, increased contextual factors are associated with a decreased likelihood of high school completion among African American students.

Implications and future directions are discussed.

Keywords: high school completion; African American; contextual factors; caregiver relationships; academic self-efficacy; resilience

An Integrated Exploration of the Contextual, Relational, and Individual Factors that Impact High School Completion among African Americans

Statement of the Problem and Purpose of the Study

High School completion is arguably the initial measure of minimal educational attainment in American society (Sugland et al., 1995), and is protective against many negative consequences that ethnic and racial minorities would otherwise face (Davis et al., 2002). Students who do not earn a high school diploma are roughly two times more likely to be chronically poor than are high school graduates (U.S. Census Bureau, 2017); are ill equipped for the modern workforce; are less likely to be permanently employed (Amos, 2009; U.S. Department of Education, 2001); and are disproportionately at risk for drug use and incarceration (Hair, et al., 2003). Unfortunately, the 78% of African American students who do complete high school still fall short of the national average (85%), with gaps as big as 25.7% when comparing races by state (U.S. Department of Education, 2018).

Several decades of research have sought to explain this phenomenon by studying high school dropout in the general population and among students from racial and ethnic minorities. Generally, studies have identified many possible causes, primarily organized by social and academic risk factors (Lee & Burkam, 2003). Social risk factors include family income, parents' education, and family structure (McKee & Caldarella, 2016). Importantly, there is a strong relationship between socioeconomic disadvantage and ethnicity, and it is therefore misleading to examine ethnic achievement gaps without examining socioeconomic status (Strand, 2013). According to a review by Sirin (2005), socioeconomic status is directly linked to academic achievement and also indirectly influences a student's development as a result of limited resources, parental involvement, parental education, and school/neighborhood location

(Hardaway & McLoyd, 2009; Sirin, 2005; Strand, 2013). Often linked with social risk factors are academic risk factors such as student attendance (Neild & Balfanz, 2006), GPA (Rosenkranz et al., 2014), and teacher assigned course grades (Bowers, 2010; Allensworth et al., 2014).

Unfortunately, teacher's evaluations are often swayed by their implicit biases (Bergh et al., 2010; Jacoby-Senghor et al., 2016) and expectations (Peterson et al., 2016), which are thought to be influenced by a student's ethnicity, SES, and even factors like a child's name, personality, and perceived friendliness (Peterson et al., 2016; Rubie-Davies, 2015; Strand, 2013). For instance, work by Strand (2013) has shown that underrepresentation of Black students in teacher assigned advanced placement may be due to perceived lack of motivation or interest.

Researchers have also identified a bevy of other correlates including gender, ethnicity, scholastic ability and achievement, self-esteem, socioeconomic status, drug and alcohol use, parental involvement, peer relations, school climate, neighborhood, class size, and student behavior (Battin-Pearson et al., 2000; Cairns et al., 1989; Croninger & Lee, 2001; Ekstrom et al., 1986; Fine, 1989; Garnier et al., 1997; McKee & Caldarella, 2016; Neild & Balfanz, 2006; Oakland, 1992; Parker & Asher, 1987; Rumberger, 1995; Weis et al., 1989; Campbell & Duffy, 1998; Jimerson et al., 2000). Notably, however, much of this research does not specifically explore or consider neither the historical barriers nor contemporary realities that may contextualize the impact of these factors in the African American community.

Fortunately, despite the sober reality of racial and ethnic gaps in high school completion rates, a large majority of African American students are graduating from high school. Grounded in strengths-based approaches, other researchers have recognized the extraordinary *resilience* of those African American students who do complete high school, citing both internal and external protective factors. Internal protective factors center on individual characteristics that may predict

positive developmental outcomes (Jowkar et al., 2014), and include having goals and aspirations (Davis et al., 2002), motivation (Wood et al., 2011), and self-efficacy (Cassidy, 2015). External protective factors are those environmental supports that are available in homes, schools, and communities (Jowkar et al., 2014). Such relevant and investigated factors include teacher and peer support (Clayton, 2017), extracurricular school activities (Williams & Bryan, 2013), and parental involvement (Chen & Gregory, 2010). Further, the utilization of strategies like connecting African American students to their community and encouraging family involvement are useful in influencing positive educational beliefs and values (National Parent Teacher Association, 2001; Catterall, 1998). Moreover, these factors have been shown to predict academic achievement and high school completion (Catterall, 1998; Clayton, 2017; Davis et al., 2002; Henderson & Mapp, 2002; National Parent Teacher Association, 2001; Wood et al., 2011).

Adopting a resilience-based approach, the present study seeks to add to the current body of literature that focuses on how an individual's assets (internal factors) and resources (external factors) can promote positive academic outcomes. Moreover, despite national attention to the matter, the purpose of this study is not to focus on the comparative nature of high school completion, but rather to identify factors that allow the 78% of African Americans who do complete high school, to reach that milestone. As opposed to focusing on risk factors like poverty, family income, or family structure, this study's principal aim is to identify whether and how more malleable factors like contextual (spiritual, educational, and cultural contexts), relational (physical and psychological caregiving), and individual factors (academic self-efficacy) influence African American individuals to complete high school. To do this, the study draws upon García Coll and colleagues' (1996) culturally informed ecological model. This research is taken up with the intention of furthering the knowledge base of clinicians, parents,

educators, administrators, and policymakers to inform the development of resources that will remove educational barriers, or at least assist African American students to navigate them, in an effort to create a more equitable education system.

A Cultural-Ecological Understanding of the Problem

García Coll et al.'s, (1996) integrative model of developmental competencies in minority children, henceforth referred to as "The Model", serves as an apt conceptual framework for understanding factors that contribute to African American students' high school completion, as it was created to examine the "diversity and strengths of minority populations" (García Coll et al., 1996, p. 1891). This framework, while birthed from the socio-developmental and ecological models of Bronfenbrenner (1977, 1979), is more appropriate for the current study due to its expansion of Bronfenbrenner's (1977) macro-, exo-, meso-, and micro-systems. The expansion of these systems can be seen in the emphasis on the social stratification system and the processes and consequences that racism, prejudice, discrimination, oppression, and segregation have on the development of minority children.

Briefly, Bronfenbrenner's ecological systems theory (1977) looks at a child's development within the context of the system of relationships that form their environment. It is a layered approach that has been named accordingly with the relational proximity to the child. For example, the microsystem considers the smallest and most immediate relationships to the child (i.e., personal relationships with caregivers, classmates, teachers, and community members), whereas the mesosystem involves the interactions among different microsystems (i.e., home and school, family and community, family and church). The exosystem has an even more indirect impact (i.e., neighborhoods and school systems), and the macrosystem is often seen as the outermost layer of a child's environment (i.e., culture, values, beliefs and political systems).

The constructs in the García Coll et al., (1996) (*see figure 1*) model are generally comparable to the layers of the ecological model. The *social stratification* mechanisms, namely, *racism, prejudice, discrimination, and oppression*; and *segregation* would be equivalent to the macrosystem. The *social stratification* variables are essential, as the foundation of this model assumes that an individual's developmental outcome is affected by their social position assigned in society based on their race, social class, ethnicity, or gender. The model goes on to propose that the societal positioning of minorities is indicative of the presence of *racism, prejudice, discrimination, and oppression*, which in turn fosters environments of *segregation* in residential, economic, social, and psychological realms. This segregation then directly influences the inhibiting and promoting environments like school districts, neighborhoods, and other institutions.

Promoting/inhibiting environments, similar to the exosystem, can result from an adequate number and quality of resources that enable neighborhoods and school systems to appropriately support the community (promoting), or conversely can derive from limited resources that create deficits that interfere with children's development (inhibiting). However, an inhibiting environment can be promoting if it supports its members to navigate its inhibiting nature. For example, children who live in impoverished neighborhoods and are forced to endure insufficient support and resources may intentionally or inadvertently become more adept at navigating challenges presented by their environment, and therefore develop an adaptive culture.

Adaptive culture might generally be reflective of the macrosystem due to its emphasis on culture and economic and political histories; however, when focusing on the interactions between various microsystems like an individual's family, church, or school, it can be better understood as the mesosystem. According to the model, adaptive culture is determined by the

previous experiences that inform the goals, values, attitudes, and behaviors that are distinct from the majority population; including, traditions and cultural legacies, economic and political histories, migration and acculturation, as well as current contextual demands. These adaptive cultures, or coping mechanisms, directly affect the propensity for minorities to meet their developmental competencies, particularly when influences of the family compound the cultural milieu.

Family, representative of the microsystem, according to the model includes the structure and roles of caregivers; family values, beliefs, and goals; racial socialization; and socioeconomic status and resources. It is important to examine the family characteristics of African American youth in particular, as one's ethnic group membership determines much of the interaction within the family (Taylor et al., 2013). If one is African American, he or she will be exposed to parental values and priorities that differ in important ways from those experienced by white children. Specifically, Black youth may face different subsistence demands, encounter different role models, and have different conceptions of adult success (Clark, 1984), thereby influencing their achievement of developmental competencies.

While the model offers a path to examine the characteristics of the child, indicative of the individual themselves, this study does not investigate the relationship between the individual biological variables (e.g., age, temperament, health status, biological factors, or physical characteristics). The study does, however, examine the specific psychological characteristic of academic self-efficacy and its impact on African American students meeting the developmental competency of high school completion.

Lastly, *developmental competencies* represent the product of an individual's entire experience. The model provides a variety of potential competencies to examine, including

cognitive, social, emotional, linguistic, biculturalism, and coping with racism. This study examined the cognitive developmental competency of high school completion as a way to measure successful acclimatization.

Application of the Model to Understand the Historical Narrative of African American Youth and High School Completion

High school completion is an important measure of academic success as it is reflective of an individual's sustained focus and persistence that differs from other measures of academic success like subject grades or GPA. High school completion is also a valuable measure of African American youth's developmental competencies because it is reflective of "competent adaptation to circumstances created by social stratification" (García Coll et al., 1996, p. 1907) and should therefore be recognized as both an intellectual and societal achievement. In order to fully understand the achievement of high school completion for African American students, it is important to fully understand the systematic barriers that have been overcome. As such, the next sections apply the various components of the model to the developmental competency of high school completion.

Race

The Encyclopedia Britannica (1884) defined the word Negro as referring to Africans who "occupied the lowest position of the evolutionary scale..." While disconcerting, it is of significant relevance and importance to understand that race, a socially constructed concept, was accepted as fact and used for the purpose of stratification at the onset of enslavement in the United States. Since that time, African Americans have been fighting this perception, as accepting this viewpoint can have both conscious and unconscious deleterious consequences. In Steele and Aronson's (1995) classic study of *stereotype threat*, an experimental group completed

an academic paper-and-pencil diagnostic task after writing down their race. Students who indicated their race performed more poorly than those who did not indicate their race before task completion, presumably due to the activation of feelings associated with how society views African Americans or the possibility of being evaluated according to these negative views.

Also supported by researchers is an alternative perspective that views group affiliation and awareness of social inequities as protective and facilitatory of African American youths' development of positive achievement beliefs and subsequent academic adjustment (O'Connor, 1999; Sanders, 1997; Ward, 1990). In fact, parents who socialize African American youth with messages emphasizing group affiliation and pride and awareness of societal inequity, had higher school achievement (Bowman & Howard, 1985; Friend et al., 2011; Neblett et al., 2009). This strong affiliation with the African American community has been linked to having a strong value for learning and education, a motivating value that results from an awareness of African Americans' past and current struggles for educational access and opportunity (Perry, 1993; Spencer et al., 2001; Weinberg, 1977). Although race has been historically used to minimize the worth of minority populations in social, economic, and academic settings by manipulating individuals to feel inferior, it can also be a source of great pride and encouragement to meet their academic goals.

Racism, Prejudice, Discrimination, and Oppression

Racism, an ideology, is based on erroneous principles of racial superiority that gives power and privilege to those who define, enforce, and establish the institutional mechanisms that maintain it (Franklin et al., 2006). *Prejudice*, generalized attitudes, judgements, or feelings about a person or group (Jones, 1997) and *discrimination*, behavior towards a person based on attitudes one holds towards a person or group (Jones, 1997), then develop as a consequence of this

ideology. Unfortunately, racism is pervasive in the minds of many teachers, administrators and policy makers whose occupational power enables them to *oppress* African American students through the consistent and systematic allocation of resources in a way that advantages one racial group at the expense of others (Aronowitz & Giroux, 1985). This can be witnessed through many actions, like consistently assigning African American students to schools in dilapidated conditions (Books, 1999) with teachers who have low expectations for student achievement (Anderson, 2001). Often, teachers with prejudices may choose to offer few opportunities to use complex thinking skills (Hayward, 1999) and emphasize erroneous content with little or no exposure to topics and skills that are tested (Anderson, 2001). This leads to truncated opportunities to learn (Tate, 1995) and allows for limited curricular choices, unchallenging curricula that omit or downplay the contributions of African Americans, or that depict them in derogatory ways (Dunn, 1999). Moreover, racism may manifest as supporting zero tolerance policies that are unequally enforced across racial groups and lead to increased dropout numbers, school suspensions, and expulsions among African American student populations (American Psychological Association Zero Tolerance Task Force, 2008; Lewis et al., 2010; Losen & Skiba, 2010). The limited educational access is largely due to an outgrowth and legacy of slavery wherein the ideology of white supremacy was used to justify hundreds of years of slavery (Davis, 2019). Unfortunately, these ideologies continue to occupy the institutions and systems of society, including those centered on academic success or failure.

Segregation of Resources

The historic 1954 Supreme Court case, *Brown vs. The Board of Education*'s declaration of segregated schools as unequal, represented what many hoped would be the turning point in educational inequality (Hare, 2001). Unfortunately, this has not been the case. Studies have

found that the persistent segregation of schools impairs students' educational opportunities (Green & Waldman, 2018; Matteo, 2019), and the segregation of neighborhoods promotes distress and instability, which significantly increases the risk for African American students to drop out of school (Crowder & South, 2003; South et al., 2003). This is consistent with history, as African American students traditionally have been provided with substandard schooling, based on white Americans' perceptions of the educational needs of African Americans (Fordham & Ogbu, 1986). Further, the limitation of reasonable employment options after high school completion also affects the perception of the value of school (Ogbu, 1974). This stratified system has been used to justify job discrimination, so that even when African American students do achieve highly in school, they are not necessarily given access to jobs, wages, and other benefits representative of their academic accomplishments (Fordham & Ogbu, 1986).

Promoting/ Inhibiting Environments

Structural inequity alone, however, does not fully explain the variation in high school completion among African American students, nor does it adequately explain the beliefs and attitudes that lead to academic behaviors (Adams & Singh, 1998). The climate of a student's environment (home, school, neighborhoods) assists in fostering these outcomes (Bandura, 1989; García Coll et al., 1996). Consistent with many other sources, Hanushek and Rivkin (2009) found that African American students attend schools with less experienced teaching staff than do white students and, according to Hare (1987), in these environments, race-based assumptions about academic ability and interest may influence differential treatment and decrease educational attainment. Inhibiting environments can also be seen in the targeted recruitment of African American students for athletic teams as opposed to debate teams, college prep courses, or academic clubs (Adams, 1995). Further, Steele (1997) posited that over time, being in such

academically threatening conditions results in lowered academic self-concept and eventually leads to disengagement with the educational process. African American youth who recognize societal inequity in economic and social mobility for their group may come to feel that education will have little usefulness for future life and occupational pursuits (e.g., Felice, 1981; Ford, 1992; Fordham, 1988; Fordham & Ogbu, 1986; Mickelson, 1990; Steinberg et al., 1992; Taylor et al., 1994).

One primary paradigm within this approach is that of Fordham and Ogbu (1986), who have argued that structural and educational barriers in American society have led African American youth to develop oppositional identities around academics, wherein academic achievement is viewed as the domain of white students. Similarly, other researchers have examined group affiliation and recognition of social barriers as risk factors through their relationship to self-concept. One explanation, representative of an inhibiting environment, is that youth within a group devalued by the larger society may protect their self-concept by devaluing domains in which their group members are expected to perform poorly (Crocker & Major, 1989; Osborne, 1997; Steele, 1997). Conversely, however, representative of a promoting environment, findings suggest that youth who perceive positive societal views about African Americans show a stronger attachment for school and are more likely to complete high school (Chavous et al., 2003). The unequal societal and educational environments influence an individual's ability to adapt to and flourish in various contexts; however, while the educational system is presently inequitable, it can still benefit the students by teaching them to prevail in the face of adversity.

Application of the Model to Understand the Resiliency of African American Youth and High School Completion

Adaptive Culture

African Americans have “been chosen to absorb an unfair share of an unfair burden in a structurally unfair system” (Hare, 2001, p. 99). The successful completion of high school is therefore evidence of their incredible *resilience*, conceptualized within a socio-ecological framework as the ability to cope adaptively (mentally and behaviorally) in the face of adversity and/or to bounce back following adverse experiences by navigating to and negotiating for social, psychological, physical and cultural resources (Ungar et al., 2013). Bronfenbrenner’s ecological perspective purposely de-centers individuals to avoid blaming them for not flourishing when there are few opportunities to access resources (Ungar, 2013). By de-centering the child, it becomes much clearer that, when growing up under adversity, the locus of change does not reside in either the child or the environment alone, but in the processes by which environments provide resources for use by the child. By extension, the child’s own individual resources are only as good as the capacity of his or her social and physical environments (contextual and caregiver relational factors) that facilitate their application to developmental tasks (Ungar, 2011). For instance, the attitudes and behaviors of African American students, though different from those of white students, are not deviant or pathological. Rather, they should be considered as a mode of adaptation necessitated by the ecological structure of their environment and community. That is, the attitudes and behaviors which African American children learn in their communities are those “required by” and deemed appropriate by their caregivers and others who have experience occupying the American corporate economy and racial stratification system (Fordham & Ogbu, 1986).

Notably, African Americans have sometimes responded by inverting the negative stereotypes and assumptions of white Americans into positive and functional attributes (Holt, 1972; Ogbu, 1983). Thus, African Americans may have transformed white American's assumptions of racial homogeneity into a collective identity system and a coping strategy where having group pride is related to having positive feelings about school and positive self-perceptions around academics (e.g., Rowley et al., 1997; Sanders, 1997; Spencer et al., 2001). In fact, Chavous et al., (2003) shared findings that report that youth with lower private regard (i.e., group affinity) and lower public regard (i.e., perceptions of societal beliefs) showed the lowest rates of high school completion, whereas youth with higher private regard, and lower public regard showed the highest rates of high school completion (Bowman & Howard, 1985; Murdock, 1999; O'Connor, 1999; Sanders, 1997). According to Chavous et al., (2003), the students who had the highest rates of high school completion held educational beliefs that either emphasized the importance of school to future success and educational efficacy or school relevance. They posit that the differences in the predictive nature of high school completion may lie in differences in their societal beliefs (Chavous et al., 2003).

Factors of Resilience

The model considers various factors indicative of resilience that facilitate the achievement of developmental competencies, namely adaptive culture and the family. This study seeks to examine how these factors might support the high school completion of African American students. Related to García Coll and colleagues' framework (1996), multiple researchers have sought to identify protective factors in the face of risk, trauma, and stress. Masten and Garmezy (1985) found three broad sets of variables, which they identified as personality features, family cohesion, and the availability of external support systems. Not

dissimilarly, Ungar & Liebenberg (2011) and Ungar et al., (2007) identified seven specific protective factors that are associated with positive development. Their factors include: (a) access to supportive relationships, (b) opportunities to experience a powerful self-definition, (c) experiences of efficacy, (d) experiences of social justice, (e) access to material resources like food, education and housing, (f) a sense of cohesion within one's family, community, or school, and (g) cultural adherence (Ungar, 2013). While variability of these specific factors depends on social, cultural, and environmental factors (Ungar, 2004), they have been found to enhance adaptive development in the face of adversity (Luthar et al., 2000; Ungar, 2013). Although Masten and Garmezy (1985), Ungar and Liebenberg (2011), and Ungar et al., (2007) have named their identified factors of resilience differently, they generally fall within three broad categories including contextual factors, relational factors, and individual factors.

Contextual Factors. *Contextual Factors*, analogous to adaptive culture in the model, are a set of protective factors (Rutter, 1985) which occur naturally within individuals and their sociocultural environments (Masten, 2001). Of the factors identified by Masten and Garmezy (1985), Ungar and Liebenberg (2011), and Ungar et al., (2007), this includes “the availability of external support systems”, “experiences of social justice”, “a sense of cohesion within one's family, community or school”, and “cultural adherence”. Importantly, nuances of contextual factors are resultant of the cultural, political, and economic history, as well as the current demands on African Americans (García Coll et al., 1996). Further, an individual's engagement in various contexts (e.g., spiritual, educational, and cultural) can compensate for a deficient home and/or societal environment (e.g., reduced experiences in positive caregiving) (Liebenberg, 2012). By providing opportunities to obtain external support systems and strengthen affiliations within schools, communities, and cultural and religious practices, contextual factors have been

shown to facilitate academic achievement and psychosocial well-being (Adelabu, 2007; Kim & Esquivel, 2011; Williams & Bryan, 2013). Therefore, this study seeks to examine the way that engagement in multiple contexts (i.e., spiritual, educational, and cultural) might influence high school completion among African Americans.

Spiritual contexts, embedded within religion (e.g., church, mosque, temple) can promote a sense of commitment that not only fosters individual well-being but a sense of self within familial, vocational, and societal roles (King, 2003). Spirituality plays an important role in positive youth development by encouraging a sense of purpose, competence, and civic engagement (Fife et al., 2011). Furthermore, spirituality and religiosity are particularly meaningful in African and African American culture by helping African American youth cope with many of life's challenges (Lewis-Coles & Constantine, 2006). In fact, African American high school students who are more spiritual, are often more well-adjusted, perform better academically, and have stronger social support networks (Kim & Esquivel, 2011; Jeynes, 1999; Park, 2001; Steward & Jo, 1998). Further, Olson (2008) found that there was an association with religious and spiritual well-being and GPA, such that increases in religious and spiritual well-being would predict an increase in GPA.

Educational contexts (e.g., school, classrooms, and various in-school and out-of-school activities), are spaces that influence the academic beliefs of a student. When a student feels that they belong within a school environment, they are more motivated to achieve academically and engage in the academic community (Adelabu, 2007). This sense of belonging and acceptance in schools also encourages students to participate in extracurricular activities and increase engagement in class (Osterman, 2000). Extracurricular school activities (e.g., athletics, academic clubs, and social organizations) are a major contributing factor to the academic success of

African American students as they provide a valuable source of tutors, mentors, and resources for African American students (Williams & Bryan, 2013). In addition, partnerships with university student organizations, campus programs, and precollege outreach programs provide students with the opportunity to experience high expectations from adults, rigorous curriculum, extended social networks, and positive relationships with other African American students (Williams & Bryan, 2013). These behaviors foster an emotional connection that encourages students to value school and academic achievement (Osterman, 2000).

In addition to spiritual and educational contexts, cultural contexts (e.g., community programs, neighborhoods, and cultural practices/activities) are also essential to the development of African American students. Cultural contexts are environments that “recognize and value the cultural and academic assets the student brings with them and in turn provide a supportive environment” (Nasim et al., 2005). Community-based programs play a key role in fostering the resilience and academic success of African American students (Williams & Bryan, 2013). Specifically, involvement with African American organizations provide culturally responsive sources of enriching extracurricular activities and extended social networks for African American students (Ginwright, 2007; Moore-Thomas & Day-Vines, 2010) that assist in stimulating affiliation with an individual’s own racial group. A sense of belonging and racial-ethnic pride has been found to be impactful in increasing the perceived relevance of academic success and positive school behaviors (Irving & Hudley, 2005; Resnicow et al., 1999; Smith et al., 2009). Therefore, involvement within spiritual, educational, and cultural contexts are seemingly vital to the development of African American populations generally, and to African American high school completion specifically.

Relational Factors. Analogous to the construct of family in the model, *relational factors* are the physical and psychological determinants of supportive relationships between a child and their caregiver(s). Of the factors identified by Masten and Garmezy (1985), Ungar and Liebenberg (2011) and Ungar et al., (2007), this includes: “family cohesion”, “access to supportive relationships”, and “access to material resources like food, education and housing”. A review by Wilder (2013) has shown that regardless of the measurement of involvement or achievement, the relationship between parental involvement and academic achievement is positive. The importance of parental relationships on academic achievement is also emphasized in the No Child Left Behind Act (Title I, Part A, Sec 1118), as schools were instructed to engage families in the education of their children (U.S. Department of Education, 2001). Less is known, however, about the influence of physical and psychological nurturance on academic achievement, especially from various caregiver relationships. Therefore, it is necessary to explore the nature of various types of relationships that develop between youth and caregivers considering the substantial changes witnessed by the American family over the past fifty years. Recent empirical work has demonstrated that youth form relationships with non-parental adults as part of normative development (Sterrett et al., 2011), as fewer adults are getting married and the rate of non-married cohabitating (40%) and single parents (28%) are at their highest levels (Popenoe & Whitehead, 2007). To that end, this study focuses on the relational (physical and psychological) factors that determine the quality of caregiver relationships, as opposed to the family structure or parental involvement, specifically.

Physical caregiving (e.g., supervision and maintenance of physiological needs) are qualities of caregiver relationships that provide individuals with the very basic necessities like food and shelter (Maslow, 1943). Importantly, when these needs are not fulfilled all other

desires, goals, and motivations become secondary (Maslow, 1943). To that end, academic achievement might be considered futile, when a student does not have enough food to eat. Further, Coleman (1986) prescribes that quality relationships require physical presence, sustained contact, and attention and involvement. This constant vigil, so to speak, allows caregivers to provide a relatively closed, highly monitored environment, where norms can be transmitted, and rewards and consequences can be used to shape behavior and encourage the completion of developmental milestones. Ensminger & Slusarcick (1992) also found that adolescents who reported that their parents had strict rules regarding school were more likely to graduate than were those who reported lenient rules. Importantly, how caregivers engage in caregiving is largely impacted by the resources available to them and the stressors they face (Liebenberg, 2012; Pirog & Magee, 1997). In this way, caregivers who have limited resources are less able to support their students. Notably, African American families' median and mean net worth (\$17,600 and \$136,200; respectively) is less than 15% of white families (\$171,000 and \$933,700; respectively) (Dettling et al., 2017). This not only exemplifies the inequitable distribution of wealth but also the reduced capacity to equally provide physical care.

Psychological caregiving (e.g., communication, maintenance of safety needs, love and belonging) are qualities of caregiver relationships that allow for positive development and school achievement (Ensminger & Slusarcick, 1992; Roksa & Kinsley, 2018; Liebenberg, 2012). Specifically, parental supports are related to positive teacher interactions and sense of belonging among students (Roksa et al., 2016). This is particularly important for students from traditionally underrepresented populations as feelings of belonging impact decisions to engage academically (Roksa & Kinsley, 2018). Roksa and Kinsley (2018) also found that when students receive more emotional support from families, they are more likely to have a GPA of 3.0 or higher and persist

through school. Additionally, according to Ensminger and Slusarcick (1992) and Davis et al., (2002) emotional involvement of caregivers may have the most direct impact on high school completion as they found that adolescents who work on homework with adult family members or confide in them about school are more likely to graduate from high school than those who do not. These physical and psychological caregiver relationships and practices are crucial to African American adolescents' educational attainment, and regardless of the parent type, or family structure, these habits can help to increase the likelihood of African American youth achieving their high school diploma.

Individual Factors. Surely, biologically related child characteristics highlighted by García Coll's model such as age, temperament, and health status play a role in African American high school completion. However, research has noted that individual psychological factors (e.g., beliefs, goals, and values) are also critical to developmental competencies such as high school completion. Of the factors identified by Masten and Garmezy (1985), Ungar and Liebenberg (2011) and Ungar et al., (2007), this includes "personality features", "opportunities to experience a powerful self-definition", and "experiences of efficacy". This study focuses on the individual factor of academic self-efficacy.

Similar to García Coll's (1996) model, the Social Cognitive Theory (SCT; Bandura, 1986) posits that the environment influences a person's behavior while also acknowledging that individuals are not merely passive agents of their environments. Moreover, this theory speaks to two important constructs: reciprocal determinism and the personal characteristic of self-efficacy. In Bandura's (1977, 1986) conceptualization, *self-efficacy* is an individual's belief in his or her capacity to execute behaviors necessary to produce specific performance attainments. It is a mechanism that can be used to explain and predict one's thoughts, emotions and actions.

Notably, his theory is less concerned with what skills and abilities an individual possesses and centers more on what an individual believes they can do with whatever skills and abilities they do possess (Bandura, 1977). In the realm of education, *academic self-efficacy*, refers to an individual's belief that they can successfully achieve a designated level on an academic task or attain a specific academic goal (Bandura, 1977; Eccles & Wigfield, 2002). While several researchers have found that academic self-efficacy is predictive of general academic achievement, (Luszczynska et al., 2005; Luszczynska et al., 2005; Usher & Pajares, 2008) others have found that the best predictor of specific academic performances are self-efficacy beliefs about specific academic goals (Pajares, 1996). Therefore, this study examined an individual's academic self-efficacy measured as their belief in their ability to complete their high school diploma.

Current Study

The aim of this study was to identify whether and how contextual factors (spiritual, educational, and cultural), caregiver relational factors (physical and psychological), and the individual factor of academic self-efficacy influence African American individuals to complete high school. In this study, *high school completion* was defined as the completion of a high school diploma from a traditional 4-year high school. Notably, this does not include GED or other alternative equivalency programs. Although many studies have attempted to examine potential factors of risk and resilience related to high school completion, few studies have examined the individual and compounded impact of various contextual, relational, and individual factors among African Americans. The present study potentially adds to this emerging body of literature by investigating the following research questions:

1. Do contextual factors (spiritual, educational, cultural) of resilience predict high school completion among African Americans?
2. Do relational factors (physical and psychological) of resilience impact the relationship between contextual factors of resilience and high school completion among African Americans?
3. Does academic self-efficacy impact the relationship between contextual factors of resilience and high school completion among African Americans?
4. Is there a combined impact of relational factors of resilience and academic self-efficacy on the relationship between contextual factors of resilience and high school completion among African Americans?

With regard to the first question, I asserted, that higher levels of contextual factors of resilience would be related to relatively greater odds of high school completion for African Americans. This is consistent with the findings reported by the American Psychological Association's Task Force on Resilience and Strength in Black Children and Adolescents (2008) that describe the protective and influential nature of community, school, and culture on high educational attainment and positive academic outcomes. Regarding the second question, I hypothesized that higher levels of relational factors of resilience would strengthen the predictive relationship between contextual factors of resilience and high school completion among African Americans. This is consistent with Ensminger and Slusarick's (1992) results that indicate family interaction and integration is predictive of high school completion. With respect to the third question, consistent with Cassidy's (2015) findings that academic self-efficacy predicts academic resilience, I hypothesized that academic self-efficacy would enhance the predictive relationship between contextual factors of resilience and high school completion among African Americans.

Regarding the fourth question, although there are no studies that have explored the compounded impact of caregiver relationship quality and academic self-efficacy on high school completion, Thorsteinsson et al., (2017) conducted a study on self-efficacy and relationship satisfaction and determined that they were significant predictors of quality of life. Therefore, I hypothesized that relational factors of resilience and academic self-efficacy would strengthen the predictive nature of the relationship between contextual factors of resilience and high school completion among African Americans.

Method

Participants

The analytic sample ($n = 81$) consisted of sixty-five self-identified African American (80.2%) and sixteen multiracial African American (19.8%) Job Corps students. This sample was comprised of thirty-five females (43.2%) and forty-six males (56.8%). Categorized in two age groups, accordingly with the norming of the selected resiliency measures (Ungar, 2011), seventy participants were between the ages of 18-23 (86.4%) and eleven participants were 24 and older (13.6%). The median level of educational attainment among participant's parents/ caregivers was high school, similarly this was also the majority of participant's parents/caregivers' educational level (55.6%). Complete sociodemographic characteristics of this sample are summarized in Table 1.

Procedure

Following Institutional Review Board approval from the University of Baltimore in Fall, 2018 the recruitment of participants was conducted using an opportunity sampling method based on age and ethnicity through academic listservs, email, social media, referrals, and flyer distribution at local universities in Washington, D.C., Maryland, and Virginia (42.1%). However,

in order to diversify the sample with participants, over the age of 18, who had not completed their high school diploma from a traditional 4-year school, students from a local Job Corps Center in Baltimore, Maryland were also recruited (57.9%). Data was collected by method of either paper and pen (40%) or online using a secure link through the data management software Qualtrics (60%); (Qualtrics, Provo, UT).

African American or Multiracial African American participants over the age of 18 were invited to take part in a research study about their experiences of individual, relational, and contextual resources as it relates to having completed or not completed their High School Diploma. Participants were asked to take a survey that would last between 15-20 minutes and were encouraged to take part in the study only if they really wanted to volunteer. Compensation was not provided to any participant for their involvement. Participants were assured confidentiality by the use of anonymizing Qualtrics (Qualtrics, Provo, UT) responses and GPS/IP addresses. Finally, participants were provided with the contact information of the primary investigator and faculty supervisor to assist with any questions or concerns during or after survey administration.

Excluded from the larger study population ($n = 149$) were any participants who were under the age of 18 ($n = 1$); did not identify as either African American/ Black or Multiracial w/ African American; European American/White ($n = 2$); Hispanic/Latino ($n = 1$); or had over 50% missing data ($n = 5$). This process yielded a representative sample of participants ($n = 140$). However, after examining the frequencies of the full sample population, I noticed that only one individual from the college sample did not complete their high school diploma from a traditional 4-year high school. This yielded little variation in the outcome variable, which led to the decision to separate the sample between Job Corps participants and college participants. Therefore, the

resulting analytic sample for the current study ($n = 81$) included only the sample of Job Corps students. Individual participant responses included missing data which varied by item. Of the 28 items, 20 had a one hundred percent response rate. The remaining 8 items had missing responses from 1-5 participants. These cases were omitted from analysis (Kang, 2013).

Measures

The Child and Youth and Adult Resilience Measures. The Child and Youth Resilience Measure (CYRM; Ungar, 2011) was initially developed through collaborative cross-cultural consultation (Ungar & Liebenberg, 2011) and research in 11 diverse regions (e.g., Canada, Africa, China, Russia, United States, etc.) at 14 community sites. The resultant measure was created by a compilation of quantitative and qualitative data, which extracted key recurring resilience themes across all participating cultural groups. The final version claims to lack the Eurocentric bias which plagues many of the popular resilience measures that are currently in use (Ungar & Liebenberg, 2011) and to provide a broad measure of resilience incorporating resilience facets from multiple domains (e.g., spirituality, psychological caregiving, peer support, culture, etc.).

The CYRM is a 28-item, self-report questionnaire that assesses three dimensions of resilience which are further broken down into a total of eight factors: *Individual* (personal skills (5 items), peer support (2 items), and social skills (4 items)), *Relationship with Primary Caregivers* (physical caregiving (2 items) and psychological caregiving (5 items)), and *Contextual* factors (spiritual context (3 items), educational context (2 items), and cultural context (5 items)). Internal reliability of the three dimensions of the CYRM-28 was assessed using Cronbach's alpha, which ranged from .65 to .91, and was acceptable in all cases (Liebenberg et al., 2012). The questionnaire used a Likert response format with a 3-point scale ($1 = No$, $2 =$

Sometimes, and 3 = Yes). The potential range of scores is from 28 to 84, with higher scores indicating the presence of more resilient qualities.

The Resilience Research Centre - Adult Resilience Measure (RRC-ARM-28) is an adapted version of the Child and Youth Resilience Measure (CYRM-28). While, the CYRM-28 was originally designed to be used with youth aged 9 to 23 years old, the 28-item Adult Resilience Measure, is generally used with participants aged 24 and older. Each item assesses the same constructs, with minimal changes in verbiage to account for the age differences (i.e., “I talk to my family/partner about how I feel” versus “I talk to my family/caregiver(s) about how I feel”) (Ungar & Liebenberg, 2011). Therefore, the Cronbach’s alpha is consistent with the CYRM-28. Keeping this in mind, the same constructs from the CYRM-28, namely, contextual factors (spiritual, educational, and cultural) and relational factors (physical and psychological caregiving) were assessed from the RRC-ARM-28.

Contextual Factors. Contextual factors, a potential predictor of high school completion in this study, was measured by using the combined total scores of the spiritual, education, and cultural factors of resilience items from the CYRM-28 and RRC-ARM-28. The total possible range of scores for the combined contextual factors is 10-30. Items from the spiritual context section include statements like “I participate in organized religious activities”, and have a possible range of scores from 3-9. Items from the educational context section include statements like “Getting an education is important to me”, and have a possible range of scores from 2-6. Items from the cultural context section include statements like “I am proud of my ethnic background”, and have a possible range of scores from 5-15.

Reliability statistics for the sample yielded a Cronbach’s alpha of .69 for the combined contextual factors. The individual clusters (spiritual, education, and cultural) were also examined

to determine eligibility for specified analysis. The Cronbach's alpha for spiritual contextual factors was .67; the Cronbach's alpha for educational contextual factors was .14; and the Cronbach's alpha for cultural contextual factors was .39. Although the coefficients are considerably lower than what is considered acceptable, advice from The Resilience Research Center (P. Jefferies, personal communication, June 10, 2020) suggest that the Cronbach's alpha for these subscales should be considered as "advisory but not deal breakers". This is because it is an ambiguous and imperfect indicator of internal consistency due to its fluctuant nature, which is in turn based on the number of items (Clark & Watson, 1995). Instead, Clark and Watson (1995) recommend the examination of the average inter-item correlation, a more "straightforward measure of internal consistency" to range between .15 - .50 to account for both generality and specificity of the target construct. When using the average inter-item correlation as a measure of reliability, the mean inter-item correlation for combined contextual factors was .19; the mean inter-item correlation for spiritual contextual factors was .39; the mean inter-item correlation for educational contextual factors was .10; and the mean inter-item correlation for cultural contextual factors was .12. Based on these values, only combined contextual factors and spiritual contextual factors showed acceptable internal reliability on their own, whereas the Cronbach alpha and inter-item correlation coefficients were below the appropriate range for both educational contextual factors and cultural contextual factors. Therefore, the decision was made to examine the influence of the combined contextual factors as opposed to the individual contextual clusters.

Relational Factors. Relational factors (physical and psychological), a potential moderator, was measured using the combined total scores of the physical and psychological relational factors of resilience items from the CYRM-28 and RRC-ARM-28. The total possible

range of scores for the combined relational factors is 7-21. Items from the physical relational factors section include statements like “My parent(s)/ caregiver(s) watch me closely”, and have a possible range of scores from 2-6. Items from the psychological relational factors section include statements like “I talk to my family/caregiver(s) about how I feel”, and have a possible range of scores from 5-15. Reliability statistics for the sample yielded a Cronbach alpha of .82 for the combined relational factors. The individual clusters (physical and psychological) were also examined to determine eligibility for specified analysis. The Cronbach alpha for physical relational factors was .47 and the Cronbach alpha for psychological relational factors was .77. Again, due to the sensitivity of the Cronbach coefficient, I examined the mean inter-item correlations of the combined relational and physical and psychological relational factors (Clark & Watson, 1995). The mean inter-item correlation of the combined relational factors was .41, the mean inter-item correlation of physical relational factors was .32, and the mean inter-item correlation of psychological relational factors was .42. Although, the mean inter-item correlations were within the appropriate range for the combined relational factors, physical relational factors, and psychological relational factors, the Cronbach alpha was only acceptable for combined relational factors and psychological relational factors. For this reason, and to maintain consistency with the combined contextual factors, the decision was made to examine the influence of the combined relational factors as opposed to the individual relational clusters.

Academic Self-Efficacy. Academic self-efficacy, another potential moderator in this study, was measured by an item in the demographic survey that asks participants to respond (1 = Yes or 0 = No) to the item: “Did you believe that you could complete your high school diploma?”

High School Completion. The outcome measure, high school completion, was determined from the demographic survey based on participant responses (1 = Yes or 0 = No) to two relevant items: “Do you have a high school diploma?” and “Did you complete your high school diploma from a traditional 4-year school?” An additional question asked participants to indicate if they completed their high school diploma from a GED or High School Diploma equivalency program (e.g., GED, Penn Foster, NLRO); however, only participants who completed their high school diploma from a traditional 4-year high school were considered in this study’s group of successful high school completers.

Demographics Questionnaire. The demographic questionnaire asked participants to respond to seventeen questions aimed to gather information on the individual and their educational, caregiver, and community engagement. Demographic questions on the individual asked participants to indicate their age (under 18, 18-23, or 24 and older); gender (binary and non-binary); race; the type of environment in which they were raised (urban, suburban, or rural); and residential stability in the past 5 years. Items on educational engagement assessed participants’ high school diploma status; school type (4-year High School or High School Equivalency program); highest level of education; home-based discussions and encouragement about high school completion; perceived caregiver(s) belief related to high school completion; and academic self-efficacy related to high school completion. Items on caregiver engagement required participants to indicate all caregivers who participated in their upbringing and their caregiver(s) highest education level. Items that investigated community engagement asked participants to select whether or not they were ever involved in extracurricular activities (e.g., sports, dance, art, music) or community-based programs (e.g., Boy Scouts, Girl Scouts, Boys and Girls Club, YMCA) as a minor. Of note, most questions were prepared in a binary (i.e., *Yes/No*)

answer format. Of the sociodemographic variables collected, age, gender, race/ethnicity, and parental education were chosen as potential covariates.

Age. Age, a potential covariate, was determined by participant identification within the age groups defined by the CYRM and RRC-ARM-28: 1 = “Under 18”, 2 = “18-23”, and 3 = “24 and older”.

Gender. Gender, a potential covariate, was determined by participant identification of either: 1 = “woman”, 2 = “man”, 3 = “transwoman”, 4 = “transman”, or 5 = “prefer not to answer”.

Race/Ethnicity. Race, a potential covariate, was determined by participant identification of “African American/Black” or “Multiracial w/ African American” from a list of racial categories: 1 = “African American/Black”, 2 = “American Indian or Alaskan Native”, 3 = “Asian American or Pacific Islander”, 4 = “European American/White”, 5 = “Hispanic/Latinx”, 6 = “Multiracial w/ African American”, 7 = “Multiracial w/o African American”.

Parent/Caregiver Education. Parent/Caregiver education, a potential covariate, was used as a proxy for socioeconomic status (Erola et al., 2016) and was determined by participant selection of their parent or caregiver’s highest grade level completed: 1 = “elementary school”, 2 = “middle school”, 3 = “high school”, 4 = “some college”, 5 = “technical school”, 6 = “associates degree”, 7 = “bachelor’s degree”, 8 = “graduate degree (ex. MA, MS, M.ED, PhD, MD, JD)”, or 9 = “I do not know”.

Analytic Strategy

Diagnostic Analyses. A product of the nature of a binary dependent variable is that a logistic regression does not require the same assumption of linearity, normality or homoscedasticity that are typically held in a linear regression model (Statistic Solutions, 2020).

Therefore, prior to conducting any formal analyses, diagnostics of the continuous predictor variables (contextual and relational factors of resilience), dichotomous predictor variable (academic self-efficacy), and dichotomous outcome variable (high school completion) were performed to identify outliers and other influential points. Due to the limited nature of the resiliency measures' scale, there were no identified univariate or multivariate outliers. Ratio of cases to variables were verified as being within the ideal ratio of 20:1. Next, assumptions of univariate normality were checked using a z-score cutoff of 3.29; multicollinearity between variables was $< .7$; skewness and kurtosis values were < 1.5 ; and the assumption for linearity in the logit was confirmed, as there was not a significant interaction term in Block 1.

A Priori Power Analysis. I hypothesized that high total scores of contextual factors, relational factors, and academic self-efficacy would predict high school completion. Although no available studies have examined these specific predictors related to the high school completion of African American students, a previous study by Rumberger and Arellano (2007) examined various individual, family, school, community, and peer characteristics that predict graduation rates of students in California. Rumberger and Arellano (2007) utilized guidelines that converted small, medium, and large effect sizes proposed by Cohen (1988) into an odds ratio (OR) of 1.5, 2.0, and 4.0 respectively. Therefore, I conservatively estimated a medium OR of 2.0 to complete an a priori power analysis using G*Power software (Faul et al., 2009). The minimum number of participants required, ($n = 96$), was suggested to be sufficient to detect an effect (power ≥ 0.8 , alpha ≤ 0.05) assuming a normal distribution and an estimated $R^2 = .25$ based on multiple predictors of contextual factors, relational factors, and academic self-efficacy.

Primary Analyses. The overarching purpose of this study was to test multiple moderation models to understand the potential amplification (i.e., increased) effect(s) of

relational factors and academic self-efficacy on the relationship between contextual factors and high school completion based on the García Coll et al., (1996) theoretical model. Additionally, I was interested in investigating whether the moderating factors would interact with one another in a way that might further explain the relationship between contextual factors and high school completion. Therefore, multiple logistic regression and moderation analyses were conducted.

To address the first research question and to test the direct effect of contextual factors (spiritual, educational, and cultural) on high school completion, a logistic regression analysis was conducted in SPSS version 26. To address research questions two, three, and four, I then conducted three separate moderation analyses using the PROCESS software macro (Hayes, 2013). Hayes' (2013) Model 1 in PROCESS was utilized to test whether relational factors moderated the relationship between contextual factors and high school completion and whether academic self-efficacy moderated this same relationship. Model 3 in PROCESS was utilized to examine whether both relational factors and academic self-efficacy would interact with one another in a way that might amplify the effect of contextual factors on high school completion. This distinction was important to test as unlike the individual moderation models where relational factors and academic self-efficacy could separately moderate the contextual factor-high school completion relationship, moderated-moderation considers how one moderator could affect the other (Hayes, 2013). Though the aforementioned candidate covariates (age, gender, race and parental education) were explored, I decided to ultimately only include age as a covariate, as the other factors were largely unrelated to high school completion in the sample population.

Results

Prior to conducting any formal analyses, all diagnostics checks described above were performed and all assumptions were met across the continuous predictor variables (contextual factors and relational factors), the dichotomous predictor variable (academic self-efficacy), and the dichotomous outcome variable (high school completion). Thus, the data from the full Job Corps sample $n = 81$ were available for analysis.

Preliminary Analysis

Preliminary analyses focused on descriptive statistics and bivariate correlations among the contextual factors of resilience, relational factors of resilience, academic self-efficacy, high school completion, and sociodemographic variables. Participants, on average, endorsed a relatively high amount of contextual factors of resilience ($M = 24.37$, $SD = 3.60$) and relational factors of resilience ($M = 16.91$, $SD = 3.30$). When examining participant endorsement of academic self-efficacy, sixty-five individuals (80.2%) indicated that they did have academic self-efficacy, while sixteen participants (19.8%) denoted a lack of academic self-efficacy. Of note, twenty-eight participants (34.6%) reported that they did complete their high school diploma from a traditional 4-year school, while fifty-three participants (65.4%) reported that they did not complete their high school diploma from a traditional 4-year school. The complete descriptive statistics are shown in Table 1.

Zero-order correlations among the study variables were explored for the analytic sample. A number of significant bivariate relationships emerged. For example, high school completion was significantly and positively associated with age ($r(81) = .24$, $p = .03$), relational factors of resilience ($r(81) = .23$, $p = .04$), and academic self-efficacy ($r(81) = .23$, $p = .04$). There was also a significant and positive association between academic self-efficacy and relational factors of

resilience ($r(81) = .22, p = .04$) and contextual factors of resilience ($r(81) = .25, p = .02$).

Additionally, contextual factors of resilience was positively associated with age ($r(81) = .39, p < .001$), relational factors of resilience ($r(81) = .50, p < .001$), and academic self-efficacy ($r(81) = .22, p = .04$). Lastly, relational factors of resilience was significantly and positively associated with age ($r(81) = .25, p = .03$) and academic self-efficacy ($r(81) = .25, p = .02$) and significantly and negatively associated with race ($r(81) = -.39, p < .001$). Parental education and gender were not associated with any of the study variables. The complete findings are summarized in Table 2.

Logistic Regression

Contextual Factors of Resilience. A logistic regression analysis assessed whether contextual factors of resilience significantly affected whether or not a participant completed their high school diploma at a 4-year traditional high school. When the single predictor was entered into the model, it did not significantly predict high school completion, $\chi^2(1, N=81) = 3.90, p = .05$. This suggests that contextual factors of resilience do not predict high school completion. The model effect size was small, with Nagelkerke $R^2 = .06$. According to the Wald criterion, contextual factors of resilience are not a significant predictor of high school completion, $\chi^2(1) = 3.60, p = .058$. Additionally, the regression coefficient was not significant, however there was a trend toward significance that showed a positive relationship between contextual factors of resilience and high school completion, $b = .13, OR = 1.14, p = .058$ (95% CI = [.996-1.313]). The results of this logistic regression model are summarized in Table 3.

Moderation Analyses

Relational Factors of Resilience. Moderation analyses evaluated the hypothesized influence of relational factors of resilience on the relationship between contextual factors of resilience and high school completion. Notably, age was included as a covariate. Prior to

analyses, the independent and moderator variables were centered using PROCESS macro (Hayes, 2018). Analyses were tested using Model 1 in PROCESS with 5,000 bootstraps at a 95% confidence interval. When relational factors of resilience, contextual factors of resilience, age, and high school completion were entered into the model, there was no significant main effect between contextual factors of resilience and high school completion ($b = .05, p = .60$). However, there was a significant interaction between relational factors of resilience and contextual factors of resilience and high school completion ($b = .06, p = .009$). Probing this interaction using the Johnson-Neyman technique revealed that relational factors of resilience moderated the association between contextual factors of resilience and high school completion within a band of significance. In this way, at low endorsement of relational factors (values below 8.91, 2.47% of the sample), there was a significant and negative relationship between cultural contextual factors of resilience and high school completion. Conversely, at high endorsement of caregiver relational factors (above 20.41, 14.81% of the sample), there was a significant and positive relationship between cultural contextual factors of resilience and high school completion. Moderate levels of relational factors were not significant (see Figure 5).

Academic Self-Efficacy. Moderation analyses evaluated the hypothesized influence of academic self-efficacy on the relationship between the contextual factors of resilience and high school completion. Notably, age was included as a covariate. Prior to analyses, the independent and moderator variables were centered using PROCESS macro (Hayes, 2018). Analyses were tested using Model 1 in PROCESS with 5,000 bootstraps at a 95% confidence interval. When academic self-efficacy, contextual factors of resilience, age, and high school completion were entered into the model, there was no significant main effect between contextual factors and high

school completion ($b = .57, p = .15$). There was also no significant interaction between academic self-efficacy and high school completion ($b = -.53, p = .18$) (see Figure 5).

Relational Factors and Academic Self-Efficacy. Moderation analyses evaluated the hypothesized combined influence of relational factors of resilience and academic self-efficacy on the relationship between the contextual factors of resilience and high school completion. Notably, age was included as a covariate. Prior to analyses, the independent and moderator variables were centered using PROCESS macro (Hayes, 2018). Analyses were tested using Model 3 in PROCESS with 5,000 bootstraps at a 95% confidence interval. When relational factors, academic self-efficacy, contextual factors of resilience, age, and high school completion were entered into the model, there was no significant main effect between contextual factors of resilience and high school completion ($b = .53, p = .19$). Further, the interactions between relational factors of resilience and contextual factors ($b = -.02, p = .89$), academic self-efficacy and contextual factors ($b = -.54, p = .19$), and relational factors, academic self-efficacy, and contextual factors ($b = .08, p = .53$) were all not significant (see Figure 5).

Discussion

Previous research has underscored the importance of understanding what internal and external assets are associated with African American individuals completing high school (Booker, 2006; Davis et al., 2002; Williams & Bryan, 2013; Wood et al., 2011) and how various contextual, relational, and individual factors contribute to these efforts (Cassidy, 2015; Chen & Gregory, 2010; Clayton, 2017; Jowkar et al., 2014; Smith-Maddox, 1998). The main objectives of this study were to examine the influence of contextual (spiritual, educational, and cultural) factors on high school completion and to investigate whether relational factors (physical and psychological) and academic self-efficacy could, in turn, both individually and simultaneously

increase the likelihood of high school completion among African American students. I expected that a high endorsement of contextual belonging, along with positive relational factors, and belief in one's own ability to achieve their high school diploma would holistically support the academic achievement of African American students. However, the findings of this study only provided partial support for the associated hypotheses. Specifically, although the dimension of contextual resilience did not emerge as a unique predictor of African American students' high school completion, the interaction between contextual factors and relational factors revealed that at higher levels of relational factors, increased contextual factors are associated with an increased likelihood of high school completion. Importantly, findings also suggest that at lower levels of relational factors, increased contextual factors are associated with a decreased likelihood of high school completion among African American students.

The Impact of Relational Factors on High School Completion

The findings of this study are consistent with the many that assert that high levels of parental support are especially important in the facilitation of academic achievement (Davis et al., 2002; Ensminger & Slusarcick, 1992; Maton et al., 1996). Importantly, the findings of this study also work to show that the quality of caregiver relationships seem to act as a switch, in that strong relationships enhance the impact of contextual environments by increasing the likelihood of high school completion, whereas poorer relationships alter the direction, such that strong contextual environments decrease the likelihood of high school completion.

The positive influence of relational factors on the relationship between the feelings of belongingness across spiritual, educational, and cultural contexts and the likelihood of high school completion among African American students is supported by many studies (Davis et al., 2002; Milot & Luddon, 2009; Park & Bonner, 2008; Spera et al., 2009; Wood et al., 2011). For

example, in spiritual contexts, religious congregations can serve as an extended family (Kim & Esquivel, 2011) and interactions with role models in religious spaces allow for opportunities to be socialized in academically oriented values and beliefs (Milot & Luddon, 2009). Further, Park and Bonner (2008) reported that parental religious involvement is associated with higher academic performance in adolescents through family socialization in religious communities. In educational contexts, expectations and aspirations from parents, family members, teachers, and counselors have been shown to assist with academic goal setting, persistence in school (Spera et al., 2009), and motivation to complete high school among African American students (Davis et al., 2002; Wood et al., 2011). Additionally, children of parents who have strict rules regarding school and provide emotional support are more likely to graduate than their peers with less involved parents (Ensminger & Slusarcick, 1992; Roksa & Kinsley, 2018). In cultural contexts, families are able to reinforce a child's sense of cultural identification, which has been shown to be a highly functional way of promoting resilience for a child from a marginalized ethno-racial community (American Psychological Association's Task Force on Resilience and Strength in Black Children and Adolescents, 2008). For example, parents might provide various messages that counteract negative racism experiences, influence academic motivation, and lead to increased academic performance (Neblett et al., 2009). These racial socialization messages might include those that emphasize pride in African American history and culture, highlight the existence of inequalities between African Americans and other racial groups, emphasize equality among races, or emphasize feelings of individual worth (Neblett et al., 2009). Importantly however, parental messages are more likely to be internalized by a child in a positive parent-child relationship (Williams & Glover, 2014). In this way, perhaps the socialization messages about spirituality, education, and culture from parents and caregivers who provide strong

physical and psychological supports are able to be most influential to African American students as they work to complete their high school diploma.

Conversely, however, it seems that when an individual's relationship with their primary caregiver lacks various aspects of physical and/or psychological caregiving (e.g., emotional support, engagement, safety and security) the influence of contextual factors of resilience on works to decrease the likelihood of high school completion. This shifted perspective may be influenced by the way a student engages with and perceives their environment. When a child does not feel that their caregiver is trusting and supportive, they may seek out external supports by engaging in various contexts as a means to compensate for reduced experiences in positive caregiving (Liebenberg, 2012). Although this would increase their feelings of belonging across contexts, it may also highlight the deficits in their relationship with their caregiver. Further, increased engagement across contexts increases the exposure to incidents of racial discrimination and unfair treatment (English et al., 2020). Without the perceived physical and psychological support of a caregiver, often demonstrated by racial socialization messages, to act as a buffer to this discrimination (Neblett et al., 2008), students may have an increased loss of trust that leads to disidentification with school and a decreased motivation to complete school (Yeager et al., 2017). Further still, parent-child relational conflict is associated with decreased self-esteem (Martinez & Garcia), school satisfaction (Smokowski et al., 2015), and increased depression (Auerbach et al., 2011; Plunkett et al., 2007), anxiety (Wood et al., 2003), aggression (Yeh, 2011), and many internalizing problems like social withdrawal and thought and attention problems (Smokowski, 2010; Yeh, 2011). As many studies have demonstrated the deleterious impact of depression, anxiety, and low self-esteem on academic outcomes (Fathi-Ashtiani et al.,

2007; Giunta et al., 2013; Wiggins et al., 1994), perhaps these symptoms may also negatively influence high school completion.

The Impact of Contextual Factors on High School Completion

Despite the existing literature that postulates the influence of spiritual (Walker & Dixon, 2002; Wood & Hilton, 2012), educational (Becker & Luthar, 2003; Booker (2006); Goodenow, 1993; Osterman, 2000), and cultural contexts (Erickson, 1997; Nasim et al., 2005; Smith, 2009; Smith-Maddox, 1998) on academic outcomes, I found no significant evidence that feelings of belonging across various contexts were associated with high school completion in this sample. Although the near trend-level findings, suggest an issue of power, I am going to further discuss non-statistically related explanations for the lack of findings.

When considering spiritual contexts specifically, populations historically lacking power or status in society have developed the use of spirituality as a resource to adapt to daily life (Maton et al., 1996; Wood & Hilton, 2012). Further, Wood and Hilton (2012) cited spirituality as a factor that serves as an inspiration for excellence, a provision for life purpose, and a source for strengthening the ability to overcome barriers and distractions. Therefore, perhaps spiritual contexts are more of a buffer to the daily indignities experienced by African American students than as a direct predictor of academic success (Maton et al., 1996).

When considering educational contexts, although African American students may identify with the purpose and value of school, their current educational environment or past experiences being educated in majority contexts (Steele, 1997) and enduring low teacher expectations (Anderson, 2001) may stifle their feelings of connectivity and belonging. Further, this may lead to an “identification-connection divide” and negatively impact student achievement (Booker, 2006, p. 3). Additionally, these findings may simply be in support of

studies conducted by Voelkl (1997) and Booker (2004) which found that despite self-reported school belonging being high among African American students, educational connection is unrelated to achievement. Instead, connectedness to school may be more related to their perception of community, acceptance, and interpersonal relationships (Faircloth & Hamm, 2005).

When considering cultural contexts, Erikson (1997) asserts that culture is, “profoundly involved in the processes and contents of education” and “shapes and is shaped by the learning and teaching that happen during the practical conduct of daily life within all the educational settings we encounter as learning environments throughout the human life span, in families, in school classrooms, in community setting, and in the workplace” (p. 33-34). Additionally, Thomas and colleagues (2003) suggest that within the context of racism and poverty, which are particularly prevalent in American society, school failure may be a result of African American students feeling marginalized because of their racial and cultural experiences and internalized messages. To that end, these findings work to show that perhaps the cultural contexts that the sample has experienced do not support their racial/ethnic background, provide them with feelings of justice, or foster the development of community allegiances (Ungar & Liebenberg, 2016) that may otherwise work to support successful high school completion.

The Impact of Academic Self-Efficacy on High School Completion

Several studies have identified academic self-efficacy as an associated factor in the achievement of educational goals and academic performance (Choi, 2005; Pajares & Miller, 1994; Zimmerman, 2000). In support of these findings, this study found correlations between academic self-efficacy and high school completion. However, there were no significant results that indicated that academic self-efficacy enhanced the contribution of contextual factors on high

school completion. While this may be due to the lack of variability, as the majority of the sample (80.2%) endorsed a belief in their ability to complete their high school diploma, these findings may support the studies that posit that despite correlations between academic self-efficacy and educational aspirations and outcomes (Johnson, 2000; Uwah et al., 2008), the exact nature of the relationship between these variables is largely unknown amongst African American populations. According to Hughes & Demo (1989) this uncertainty may be due to unequal treatment and discrimination as these experiences strongly influence the self-efficacy of African Americans. Although academic self-efficacy is distinct from general self-efficacy, this study's findings may work to support this assertion as Fordham & Ogbu (1986) also argue that despite their academic achievement the stratified system reduces job opportunities for African Americans. Therefore, students may detach their belief in their ability to complete high school from their behavior as a protection from possible failure and negative impacts to their self-esteem (Steele, 1992). In this way, African American students may believe that they can, and yet still do not complete their high school diploma based on the understood probability that injustices and discrimination will be present regardless of their academic achievements.

Relational Factors and Academic Self-Efficacy on High School Completion

Despite my hypothesized belief that relational factors and academic self-efficacy would have a compounded impact on the relationship between contextual factors and the successful completion of high school among African American students, this study did not find evidence to support this assertion. The interaction of relational factors was no longer significant in this model, presumably due to lack of power. This coupled with the nonsignificant influence of academic self-efficacy, due to low variability, presented a challenge that made it difficult to

extrapolate the potential impact of relational factors and academic self-efficacy on high school completion among African Americans.

Strengths, Limitations and Future Directions

The strengths of the present study include extending the current body of research that examine the factors of resilience that impact the successful completion of high school among African American students without focusing on the population deficits. Also, to my knowledge this is the first study to use the CYRM-28 and ARM-28 to investigate contextual factors as a potential predictor of high school completion among African Americans. Moreover, to my knowledge this is the first study to consider the potential interaction of relational factors and academic self-efficacy on the relationship between contextual factors and high school completion among African American students.

These strengths, however, must be considered in light of the study's limitations. First, although the initial development of the CYRM-58 was culturally normed, the resultant measures used by this study (i.e., CYRM-28 and ARM-28) were only validated on an all-Canadian population. This may have presented some problems when attempting to measure the influence of contextual factors on high school completion among African Americans. Additionally, due to the low internal consistency among the individual contextual clusters (i.e., spiritual, educational, and cultural), exploration of the impact of the specific contexts on high school completion was not possible. Future studies may choose to identify or develop a more Afrocentric resiliency scale that offers a way to better understand the influence of various contexts and relational factors in educational settings and beyond. Secondly, despite proxies (i.e., parental education), the study's demographic survey failed to directly examine family socio-economic status. This oversight neglects the findings of existing research which has found that socioeconomic status is

a major contributor to academic achievement (Hardaway & McLoyd, 2009; Sirin, 2005; Strand, 2013). Additionally, the measure of academic self-efficacy was assessed by one question in the demographic survey. This limited assessment did not allow for deep evaluation of efficacy among the sample. Future studies should consider the use of a culturally normed academic self-efficacy scale in order to better understand the relationship between academic self-efficacy and high school completion among African Americans. Another limitation of this study includes the retrospective self-report questions in the demographic survey which often pose an issue of validity, as participants may exaggerate or minimize their experiences or simply mistake or misremember the information asked for by the study (Toftthagen, 2012). Should other researchers have the resources, a longitudinal study may be beneficial to examine the effects of various contexts and relational supports over time. Lastly, because the analytic sample was isolated from the larger study sample, the findings may have been affected by the reduced power. Further, the analytic sample only included the Job Corps students and was therefore not representative or randomly sampled. Subsequently, caution must be taken when generalizing the findings.

In addition to those future directions already noted, the present study should be replicated with a larger and more diverse sample of African American students. Additionally, since parental relationships are integral to the academic wellbeing of the child, researchers interested in furthering this finding should continue to seek to understand how children and youth can experience adaptive developmental outcomes despite the potential challenging circumstances presented by the family structure (e.g., single parent households) in which they live. To do this, future studies should investigate the specific types of parental and non-parental involvement and should separately assess the involvement of each parental and non-parental adult that participated in the upbringing of the child. Additionally, future studies might consider examining the

influence of teacher relational factors as a means to predict high school completion of African American students to better understand the way that teacher socialization or perceived biases might impact educational attainment. Studies might also consider investigating the differential impact of contextual and relational factors on high school completion across gender identity as some factors may be more influential than others considering the socialization of gendered expectations. Furthermore, future studies should assess the psychological symptoms (e.g. depression, anxiety, stress) of African American students to get more information about the way that caregiver relationships impact mental health and the subsequent impact of high school completion. Additionally, qualitative studies may act as a resource to tease apart this relationship as well as allow for a more in depth understanding of the participant's perspective of the impact that each of the contextual and relational factors had on their successful or unsuccessful high school completion.

Implications

There are several implications of this study for clinicians, parents, educators, administrators, and policymakers about how they work with African American students. Themes emerging from this study highlight the importance of positive physical and psychological relational factors from caregivers, while also underscoring the deleterious influence of poor caregiver relationships (e.g., lacking physical and psychological support). In this way, it is vitally important for all stakeholders to work to provide and supplement the physical and psychological factors that serve to 'turn on' the resources provided by the contexts in spiritual, educational, and cultural environments, as it is these factors that assisted in predicting high school completion from a traditional 4-year high school in the sample. Importantly, although the implications are separated by provider, it is recommended that all stakeholders work together to take a shared

responsibility in facilitating the successful completion of high school among African American students. African American youth have historically been devalued by society, and this understanding works to reduce their academic achievements (Crocker & Major, 1989; Osborne, 1997; Steele, 1997). Instead, all persons who engage with and encounter African American youth should try to reverse this impact, as findings suggest that youth who perceive positive societal views about African Americans show a stronger attachment for school and are more likely to complete high school (Chavous et al., 2003). With that being said, the following additional implications are suggested.

Implications for Educators, Administrators, and Policy Makers. Curriculum and instruction should be culturally focused, and relevant to African American culture specifically. Any discussion of education within a multicultural context must consider the implications of personal and cultural knowledge, values, and language for the learning process (Smith-Maddox, 1998). Educators should work to provide supplemental physical and psychological care by acknowledging the individual differences of each student and not allow biases to impact their treatment. Schools need to consider the role of institutional arrangements that may contribute to the African American achievement gap. For example, schools should monitor and review patterns in disciplinary actions and the racial/ethnic composition of advanced academic spaces (i.e., honors and advanced placement classes). Lack of representation may reduce a student's desire to engage academically (Fordham & Ogbu, 1986). Further, despite the perpetual presence of racism, prejudice, discrimination, oppression, and segregation in school systems, educators can teach their students how to navigate the unequal system such that students learn to prevail in the face of adversity. It is also the responsibility of the administrators and policy makers to reduce the obstacles presented to African American students in the school system. Policy makers

should therefore create targeted legislation to provide equal resources to all schools regardless of neighborhood location. Lastly, the results of this study suggest that policies that improve family environment should be most effective among African American students. In this way, educators and policy makers might consider expanding the opportunities for family engagement to permit parents and caregivers who work to more actively support their students.

Implication for Parents/Caregivers. Parental relationships are especially important to the academic success of African American students. They not only serve as role models and sources of encouragement to their children, but also as a tool to strengthen the impact of the various contexts in which students navigate. Parent-child communication is also particularly influential as the socialization of caregivers across contexts allows for the transmission of messages related to academically oriented goals and values. Parents should also have conversations with their children about race and instill messages of cultural pride and empowerment as these messages assist in motivating youth to achieve their academic goals (Neblett et al., 2008). Caregivers should be conscious however of their messages as African American children learn their attitudes and behaviors from their family members and community (Fordham & Ogbu, 1986). Additionally, exposing children to positive community traditions and cultural events will also work to impact the academic outcomes of African American students. Importantly, these findings are not specific to biological parents. Caregivers of any variety are able to provide these supports to children, and in fact, according to Criss and colleagues (2002) when it comes to resilience, the more stakeholders that are present, the better outcomes can be expected from youth.

Implications for Clinicians. Counselors, therapists, and psychologists can all help to implement supports to students. Clinicians should educate parents on the importance of positive

cultural messages and engagement and also encourage single parents to supplement their physical and psychological support with family members or friends. What seems to be most important is that students feel safe, supported, and confident in their racial/ethnic identity and across various contexts. In sessions with African American youth, clinicians might inquire about their feelings related to racial pride, fair treatment, and parental support. Interventions around these topics may prove to be particularly impactful when working to increase academic productivity. For example, clinicians could work with families, parents, and caregivers to develop strategies to enhance positive parent-child relationships that emphasize physical and psychological care.

Conclusion

This study adds to a small but present literature investigating the internal and external factors that contribute to high school completion among African American students. In addition, this work further supports the notion that academic success for African Americans is a complicated issue, one that is more complex with this particular population than with others (Fife et al., 2011). This analysis has demonstrated the impact of context and caregiver relationships on high school completion in African Americans. Graduation from high school could be predicted with considerable success when examining strong contextual belongingness and high quality physical and psychological relationships with caregivers. It is my hope that these findings may help to combat the achievement gap which continues to be a significant problem for far too many African Americans. Further exploration of the multiple aspects of contextual, relational, and individual factors is needed to delineate the varied impacts on high school completion for these students to achieve their full potential.

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Figure 1

Integrative model for the study of developmental competencies in minority children. From García Coll et al., 1996

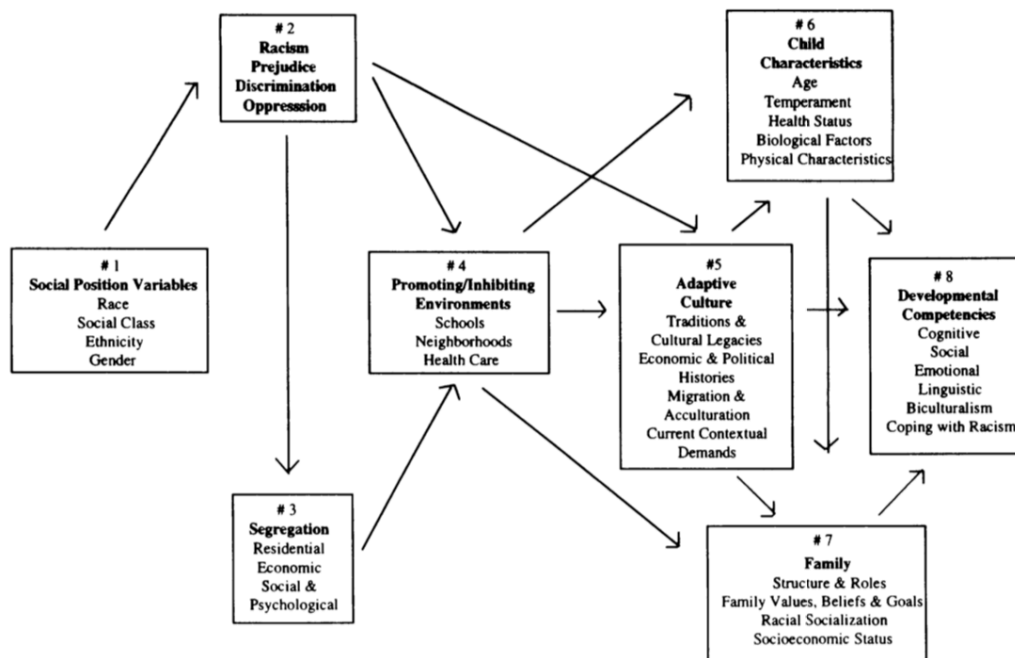


Figure 2

Moderation model of relational factors

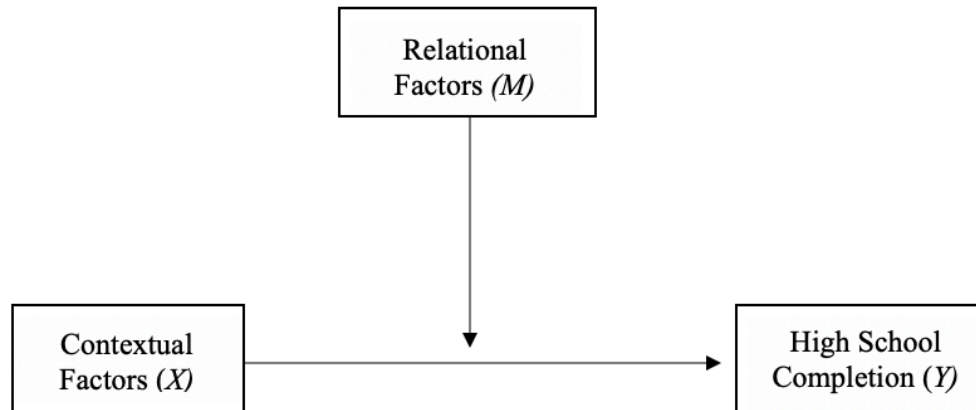


Figure 3

Moderation model of academic self-efficacy

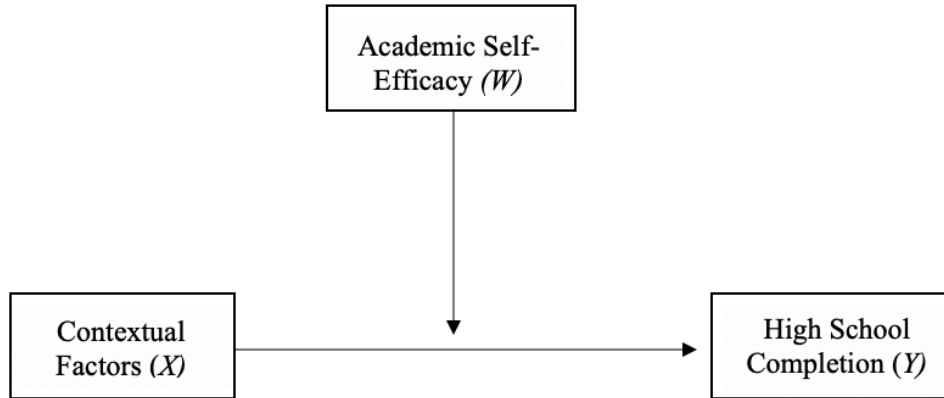


Figure 4

Moderated Moderation model of relational factors and academic self-efficacy, contextual factors and high school completion

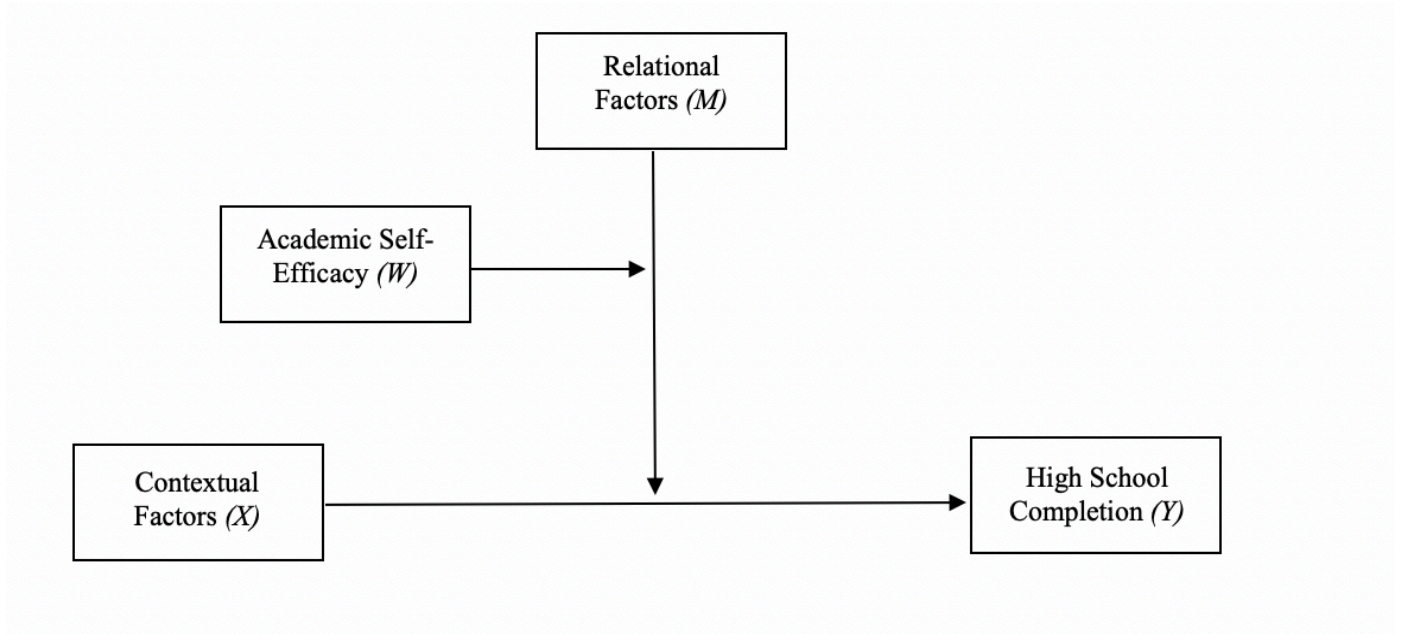


Table 1***Summary of Relevant Study Variables Characteristics (n = 81)***

Variable	
Sociodemographic Characteristics	
Age <i>n</i> (%)	
18-23	70 (86.4)
24 and older	11 (13.6)
Gender <i>n</i> (%)	
Female	35 (43.2)
Male	46 (56.8)
Race <i>n</i> (%)	
African American	65 (80.2)
Multiracial African American	16 (19.8)
Parental Education <i>n</i> (%)	
Middle School	3 (3.7)
High School	45 (55.6)
Some College	10 (12.3)
Technical School	2 (2.5)
Associates Degree	5 (6.2)
Bachelor's Degree	8 (9.9)
Graduate School	1 (1.2)
I do not know	7 (8.6)
Resiliency Factors <i>M</i> (<i>SD</i>)	
Contextual	24.37 (3.60)
Relational	16.91 (3.30)
Academic Self-Efficacy <i>n</i> (%)	
Yes	65 (80.2)
No	16 (19.8)
High School Completion <i>n</i> (%)	
Yes	28 (34.6)
No	53 (65.6)

Table 2*Means, Standard Deviations, and Bivariate Correlations of Relevant Study Variables*

	1	2	3	4	5	6	7	8
1. Age	1							
2. Gender	-.018	1						
3. Race/ Ethnicity	-.197	-.005	1					
4. Parental Education	-.058	-.118	-.133	1				
5. Contextual Factors	.392**	-.070	-.199	.021	1			
6. Relational Factors	.320**	-.053	-.394**	-.135	.578**	1		
7. Academic Self-Efficacy	.197	-.120	-.143	.133	.224*	.252*	1	
8. High School Completion	.242*	-.100	-.100	.035	.215	.233*	.230*	1

*p<0.05. **p<0.01.

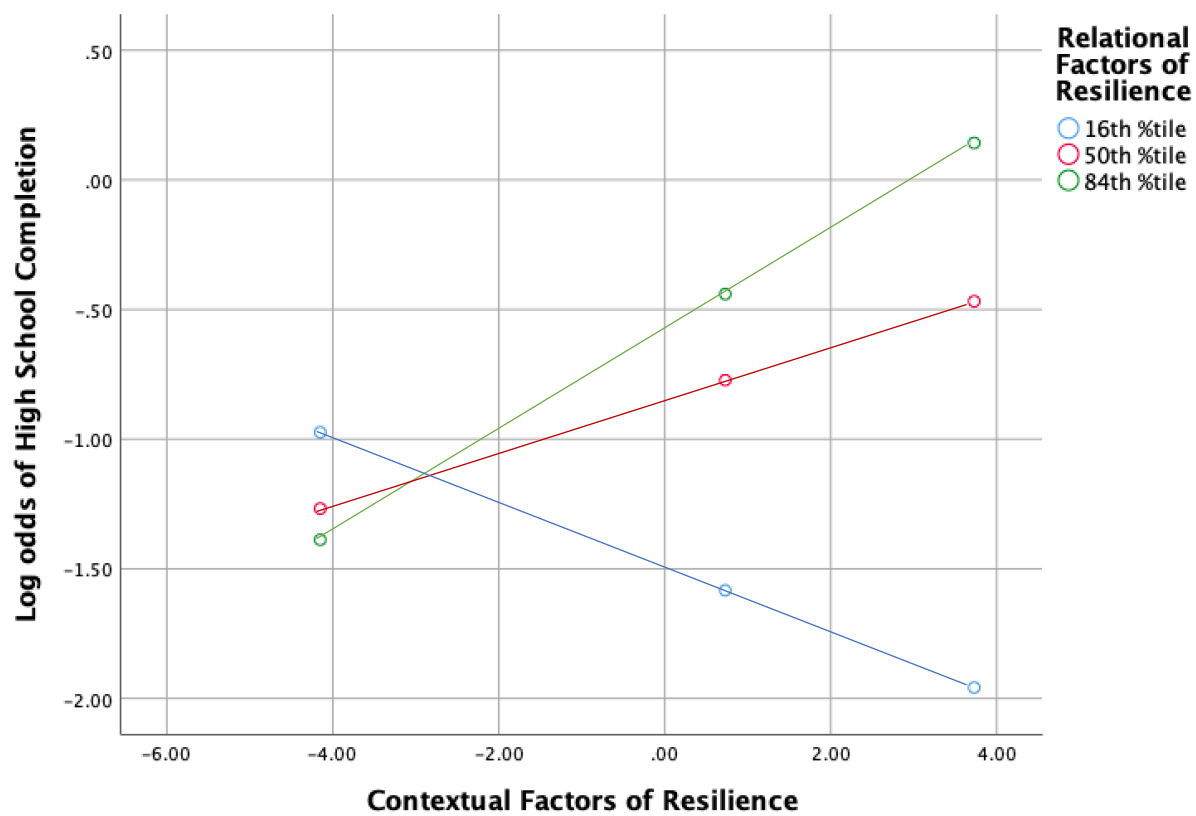
Table 3***Logistic Regression, Moderation, and Moderated Moderation Analysis***

Variables	Model 1			Model 2			Model 3			Model 4		
	<i>b</i>	OR	OR 95% CI	<i>b</i>	OR	OR 95% CI	<i>b</i>	OR	OR 95% CI	<i>b</i>	OR	OR 95% CI
Contextual Factors	.13	1.14	(.996, 1.313)	.05	1.05	(.86, 1.30)	.57	1.77	(.82, 3.82)	.53	1.70	(.78, 3.74)
Relational Factors				.18	1.20	(.94, 1.52)	-	-	-	.14	1.15	(.58, 2.27)
Age				.52	1.68	(.36, 8.17)	1.03	2.80	(.65, 12.06)	.53	1.70	(.35, 8.33)
Relational x Contextual				.06**	1.06	(1.01, 1.10)	-	-	-	-.02	.98	(.76, 1.26)
Academic Self-Efficacy							1.29	3.63	(.50, 26.31)	.70	2.01	(.25, 15.96)
Academic S.E. x Contextual							-.53	.59	(.27, 1.28)	-.54	0.58	(.26, 1.32)
Relational x Academic S.E. x Contextual										.08	1.08	(.35, 8.33)

Note. Unstandardized logistic coefficients with odds ratios (OR). CI: Confidence Interval. Model 1 includes logistic regression with contextual factors. Model 2 includes moderation model with relational factors. Model 3 includes moderation model with academic self-efficacy. Model 4 includes moderated moderation model with relational factors and academic self-efficacy. N= 81.

* *p*-value < .05, ** *p*-value < .01, *** *p*-value < .001.

Figure 5

Moderation of Relational Factors of Resilience

APPENDIX A: DEMOGRAPHIC SURVEY QUESTIONNAIRE

1. How old are you?
 - 18-23
 - 24 and older

2. What is your Gender?
 - Woman
 - Man
 - Transwoman
 - Transman
 - Prefer not to answer

3. What is your race? (*Select one*)
 - African American/Black (not Hispanic)
 - American Indian or Alaskan Native
 - Asian American or Pacific Islander
 - European American/White (not Hispanic)
 - Hispanic/Latino
 - Multiracial (w/ African American)
 - Multiracial (w/o African American)
 - Other

4. What type of environment did you grow up in?
 - Urban
 - Suburban
 - Rural

5. Do you have a high school diploma?
 - Yes
 - No

6. Did you complete your high school diploma from a traditional 4-year school?
 - Yes
 - No

7. Did you complete your high school diploma from a GED or High School Diploma equivalency program (Penn Foster, NLRO, etc.)?
 - Yes
 - No

8. Who participated in your upbringing? *(Select all that apply)*
- Biological parents (mother and father)
 - Biological mother
 - Biological father
 - Adoptive parent/s
 - Stepparents
 - Foster parent/s
 - Grandmother
 - Grandfather
 - Aunt
 - Uncle
 - Siblings
 - Friends
 - Other
9. What was the highest-grade level completed by your guardian?
- Middle school
 - High school
 - Some college
 - Technical school
 - Associates degree
 - Bachelor's degree
 - Graduate degree (ex: M.A., M.S., M.Ed., Ph.D.)
 - I do not know
10. How many times have you moved homes in the past 5 years?
- 0-1
 - 2-3
 - 4-5
 - 5+
11. As a minor, were you ever involved in extracurricular activities (ex. Sports/ Dance/ Art/ Music)?
- Yes
 - No
12. As a minor, were you ever participated in community sponsored programs? (Boy Scouts/ Girl Scouts/ Boys and Girls Club/ YMCA)
- Yes
 - No

13. Was completing High School discussed in your home?

- Yes
- No

14. Was completing High School encouraged in your home?

- Yes
- No

15. Did you believe that you would complete your High School?

- Yes
- No

16. Do you think that your parent(s)/guardian(s) believed that you would completing High School?

- Yes
- No

APPENDIX B: CHILD AND YOUTH RESILIENCE MEASURE

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OPTION 2: SECTION C

To what extent do the sentences below describe you? Circle one answer for each statement.

	No	Sometimes	Yes
1. I have people I want to be like	No	Sometimes	Yes
2. I share/cooperate with people around me	No	Sometimes	Yes
3. Getting an education is important to me	No	Sometimes	Yes
4. I know how to behave/act in different situations (such as school, home and church)	No	Sometimes	Yes
5. My parent(s)/caregiver(s) watch me closely, they know where I am and what I am doing most of the time	No	Sometimes	Yes
6. I feel that my parent(s)/caregiver(s) know a lot about me (for example, who my friends are, what I like to do)	No	Sometimes	Yes
7. There is enough to eat at home when I am hungry	No	Sometimes	Yes
8. I try to finish activities that I start	No	Sometimes	Yes
9. Spiritual beliefs are a source of strength for me (for example, believing in a God or Allah)	No	Sometimes	Yes
10. I am proud of my ethnic background (for example, I know where my family comes from or know about my family's history)	No	Sometimes	Yes
11. People think I am fun to be with	No	Sometimes	Yes
12. I talk to my family about how I feel (for example when I am hurt or sad)	No	Sometimes	Yes
13. When things don't go my way, I can fix it without hurting myself or other people (for example hitting others or saying nasty things)	No	Sometimes	Yes
14. I feel supported by my friends	No	Sometimes	Yes
15. I know where to go to get help	No	Sometimes	Yes
16. I feel I belong at my school	No	Sometimes	Yes
17. I think my family cares about me when times are hard (for example if I am sick or have done something wrong)	No	Sometimes	Yes
18. I think my friends care about me when times are hard (for example if I am sick or have done something wrong)	No	Sometimes	Yes
19. I am treated fairly	No	Sometimes	Yes
20. I have chances to show others that I am growing up and can do things by myself	No	Sometimes	Yes
21. I know what I am good at	No	Sometimes	Yes
22. I participate in religious activities (such as church, mosque)	No	Sometimes	Yes
23. I think it is important to help out in my community	No	Sometimes	Yes
24. I feel safe when I am with my family	No	Sometimes	Yes
25. I have chances to learn things that will be useful when I am older (like cooking, working, and helping others)	No	Sometimes	Yes
26. I like the way my family celebrates things (like holidays or learning about my culture)	No	Sometimes	Yes
27. I like the way my community celebrates things (like holidays, festivals)	No	Sometimes	Yes
28. I am proud to be a citizen of _____ (insert country)	No	Sometimes	Yes

- Ungar, M., and Liebenberg, L. (2011). Assessing resilience across cultures using mixed-methods: Construction of the Child and Youth Resilience Measure-28. *Journal of Mixed Methods Research*, 5(2), 126-149.
- Liebenberg, L., Ungar, M., and Van de Vijver, F. R. R. (2012). Validation of the Child and Youth Resilience Measure-28 (CYRM-28) Among Canadian Youth with Complex Needs. *Research on Social Work Practice*, 22(2), 219-226.



APPENDIX C: ADULT RESILIENCE MEASURE

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OPTION 2: SECTION C**To what extent do the sentences below describe you? Circle one answer for each statement.**

	No	Sometimes	Yes
1. I have people in my life who I can respect	No	Sometimes	Yes
2. I share/cooperate with people around me	No	Sometimes	Yes
3. Getting and improving qualifications and skills is important to me	No	Sometimes	Yes
4. I know how to behave in different social situations (such as at work, home, or other public places)	No	Sometimes	Yes
5. My family is supportive towards me	No	Sometimes	Yes
6. My family knows a lot about me (for example, who my friends are, what I like to do)	No	Sometimes	Yes
7. If I am hungry, I can usually get enough food to eat	No	Sometimes	Yes
8. I try to finish activities that I start	No	Sometimes	Yes
9. Spiritual beliefs are a source of strength for me (for example, believing in God or Allah)	No	Sometimes	Yes
10. I am proud of my ethnic background (for example, I am proud of where my family comes from or know a lot about my family's history)	No	Sometimes	Yes
11. People think that I am fun to be with	No	Sometimes	Yes
12. I talk to my family/partner about how I feel (for example, when I am sad or concerned)	No	Sometimes	Yes
13. When things don't go my way, I usually fix it without hurting myself or other people (e.g. without using drugs or being violent)	No	Sometimes	Yes
14. I feel supported by my friends	No	Sometimes	Yes
15. I know where to go if I need help	No	Sometimes	Yes
16. I feel that I belong in my community	No	Sometimes	Yes
17. My family cares about me when times are hard (for example, when I am ill or in trouble)	No	Sometimes	Yes
18. My friends cares about me when times are hard (for example, when I am ill or in trouble)	No	Sometimes	Yes
19. I am treated fairly	No	Sometimes	Yes
20. I have opportunities to show others that I can act responsibly	No	Sometimes	Yes
21. I know what I am good at	No	Sometimes	Yes
22. I participate in religious activities (like going to church or mosque)	No	Sometimes	Yes
23. I think it is important to help out in my community	No	Sometimes	Yes
24. I feel secure when I am with my family	No	Sometimes	Yes
25. I have opportunities to apply my abilities in life (like using skills, working at a job, or caring for others)	No	Sometimes	Yes
26. I like my family's culture and the way my family celebrates things (e.g. holidays)	No	Sometimes	Yes
27. I like my community's culture and the way my community celebrates things (e.g. holidays or festivals)	No	Sometimes	Yes
28. I am proud to be a citizen of _____ (insert country)	No	Sometimes	Yes

- Ungar, M., and Liebenberg, L. (2011). Assessing resilience across cultures using mixed-methods: Construction of the Child and Youth Resilience Measure-28. *Journal of Mixed Methods Research*, 5(2), 126-149.
- Liebenberg, L., Ungar, M., and Van de Vijver, F. R. R. (2012). Validation of the Child and Youth Resilience Measure-28 (CYRM-28) Among Canadian Youth with Complex Needs. *Research on Social Work Practice*, 22(2), 219-226.



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