

The Influence of Selected Noncognitve Variables on the Academic Success of African American High School Males

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This study examined the influence of selected noncognitive (psychosocial) variables on the academic success of African American high school males. The study analyzed the relationship between seven independent variables (positive self-concept, realistic self-appraisal, successfully handling the system (racism), preference for long-term goals, availability of a strong support person, leadership experience, and community involvement), referred to in the document as noncognitive variables, and one dependent variable (academic success), using the Non-Cognitive Questionnaire (NCQ). The research question explored whether a statistically significant relationship existed between the seven noncognitive variables and the academic success of African American high school males, in grades 10 through 12. Descriptive statistics, regression and correlational analysis showed that, of the seven noncognitive predictor variables, three were statistically significant to academic success, and four were not. The implications of these findings are then discussed.

Keywords: Academic success, noncognitive variables, African American males

In their attempts to assess the problems of African American males over the decades, several scholars (Harper, 2014; Howard, 2014; Jackson, 2014; Lemelle, 1997; Verdugo & Henderson, 2003) have highlighted the experience of poor academic performance as a major factor.

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Some researchers have suggested that the African American male's underperformance in the classroom is often his first significant experience with failure (Boyd-Franklin, Franklin, & Toussaint, 2000; Howard, 2014; Jackson, 2012; Kunjufu, 2002; Mincy, 1994; Walker, 2012). These researchers maintain that this early experience with failure can be viewed as the starting point of a journey that often leads to engagement in antisocial activities and other self-destructive behaviors (Alonso, Anderson, Su, & Theoharis, 2009; Verdugo & Henderson, 2003; Yeakey, 2003). Nevertheless, some have argued that there is an overemphasis on negative outcomes. Along the same line, in a sequel to his seminal work, on the topic *The Strength of African American Families*, Hill (1997), referenced the continued imbalance in the depiction of the African American family by both the media and social science literature. Hill found that most reports on the African American family, focused on why these families underachieve, as opposed to focusing on why many African American families achieve despite great odds. Other scholars (Bush & Bush, 2010; Harper, 2014; Hrabowski, Maton, & Greif, 1998; Jackson, 2012; Walker, 2012) have also documented a similar imbalance.

Acknowledging a lack of balance in the literature, some authors (Allen, 2015; Bempechat, 1998; Harper, 2014; Wilson, Douglas, & Nganga, 2013) assert that much of the research that examines academic success and failure tends to focus mainly on students' deficits. They argue that the focus needs to be more on exploring students' success and the factors that make such successes possible. Accordingly, the present study addressed the issue of academic success among African American high school males, to discover some of the key determinants of success.

Focus of the Study

African American males face formidable challenges to their educational development. Statistics on educational attainment suggest that many African American youths are at-risk in the nation's schools (Duncan & Magnuson, 2011; Flennaugh, 2014; Harper 2014; Howard, 2014; Jencks & Phillips, 2001; Ladson-Billings, 2012; Ravitch, 2001; Wood & Williams, 2013). A closer look at the data indicates that out of all students, African American males suffer the greatest potential for risk. Reporting from the Schott Foundation for Public Education's 10th Biannual report on the state of African American Males in Public Education, Jackson (2014) underscored the following: "...40 % of African American males drop out of high school. Only 60 percent of them earn high school diplomas. That's compared with a 65 percent graduation rate for Latino males and 80 % for young White men" (p. 25). The report examined national data on high school completion rates during the 2012–2013 academic years. The report also found that although the overall graduation rate for Black males has grown to 59 %, up from 51 % in the previous 2010–2011 survey, they are least likely of all demographic groups to graduate from high school in 35 of 47 states and the District of Columbia (Jackson, 2014).

Although there have been many studies that seek to address the problem of school underachievement among African American males (Howard, 2014; Jackson, 2014; Lynn, Bacon, Toten, Bridges, & Jennings, 2010; Pollard & Welch, 2003; Toldson, Fry-Brown, & Sutton, 2009), a review of the literature revealed an absence of research that examined the influence and relationship of selected noncognitive variables affecting the academic success of African American high school males. Existing studies that have examined the influence of noncognitive variables on the academic success of African Americans males (Sedlacek, 2003, 2004, 2005;

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2017; Tracey and Sedlacek, 1987; Ting, 2000; Ting and Robinson, 1998), have focused exclusively on higher education; primarily first year college students (Palmer, Davis, & Hilton, 2008, 2009). Similar attention has not been given to African American males in secondary education. In addition, there is a dearth of work that examines the characteristics of academically successful African American high school males (Harper, 2014; Hebert, 2002; Howard, 2014; Lynn, Bacon, Toten, Bridges, & Jennings, 2010; Pollard & Welch, 2003; Toldson, Fry-Brown, & Sutton, 2009). Thus, prior to the present study, African American high school males have not been the subjects of research that seeks to examine the impact of noncognitive variables on academic success.

Research Aim, Research Question and Hypotheses

Research Aim

The present study examined variables that may have a positive influence on the academic success of African American high school males, in grades 10 through 12. The study attempted to identify the factors that are most responsible for producing such success and to serve as a framework/model for designing programmatic interventions that would increase the number of academically successful African American high school males.

Research Question and Hypothesis

The research question explored in this study was whether a statistically significant relationship existed between the aforementioned seven noncognitive variables and the academic success of African American high school males, grades 10 through 12. The central hypothesis examined was: Is there is a statistical significant relationship between the noncognitive variables *positive self-concept, realistic self-appraisal, successfully handling the system (racism), preference for long-term goals, availability of a strong support person, leadership experience, community involvement* and the academic success of African American high school males, grades 10 through 12.

Significance of the Study

Although some observers may find it counterproductive to examine the experiences of students who are achieving in school, since these students have already proven that they can excel in academic settings, however, Bempechat (1999), Bowser (1991), Flennaugh (2014), Harper (2014), and Hebert (2002), previously cited researchers, believe concentrating solely on why students fail rather than why/how they succeed is shortsighted and misses the point entirely. These researchers argue that a great deal could be learned about promoting school success by studying those students who seem to succeed academically despite many barriers. The essential need to investigate those factors that contribute to the success of African American high school males is evidenced by the increasing proliferation of local and national forums that address the plight of this group (Flennaugh, 2014; Harper, 2014; Howard, 2014; Ladson-Billings, 2012; Valencia, 2010). One of the goals of the present study was to expand on the findings of Sedlacek and his colleagues (Sedlacek, 2004, 2005, 2017), as previously noted, in predicting academic success using noncognitive variables. The study utilized African American high school males in the 10th through 12th grades as the target population, instead of traditional college students of

color, as was the case in Sedlacek's and other studies that have used noncognitive variables to investigate academic success.

Literature Review

Available research tends to generalize all students of color, with some reference to African American students as a group. When African American high school males are presented in research, they are presented as a monolithic group (Allen & Mitchell, 1998, Ladson-Billings, 2012; Valencia, 2010). The scarcity of research on the academic success of African American high school males emphasizes the need for theoretical explanations for these students' academic success (Flennaugh, 2014; Harper, 2014; Toldson, Fry-Brown, & Sutton, 2009).

Historically, academic success, whether defined as academic achievement or educational persistence, has been studied in terms of purely academic dimensions, such as lack of ability, or good versus poor study habits (Guskey, 2013; Hatti & Anderman, 2013). However, growing evidence has indicated that psychosocial dimensions may be as important and perhaps more important to academic success (Baker, Gruber, & Milligan, 2015; Sedlacek, 2003, 2005, 2017; Ting, 2000; Zheng, Saunders, Shelley & Whalen, 2000). In their attempt to highlight the significance of noncognitive variables in the overall assessment of students' academic success, Ford, Grantham, and Bailey (1999) stated that many factors affect students' performance in evaluative situations. Most test manuals caution test administrators to seriously consider such noncognitive variables as health, self-perception, familiarity with testing, quality of educational experiences and opportunities, level and type of academic motivation, and learning styles, in the testing, interpretation, and decision-making process. These variables, the authors continue, affect test performance and can obscure students' abilities. For instance, when there is an incompatibility between African American males' learning styles and the instructional preferences of schools, which generally favor field-independent, abstract, and analytical styles of learning, academic failure and poor test performance may result (Hale, 2001; Ladson-Billings, 2012: Lvnn. Totten. Bridges. & Jennings. 2010).

Studies on noncognitive variables

In 1976, Sedlacek and Brooks, drawing upon available research, developed a list of seven noncognitive variables that they argued were related to academic success for all students and minority students, in particular. Based on this work, Tracey and Sedlacek (1984) developed the Non-Cognitive Questionnaire (NCQ) to assess these variables. In one study, Sedlacek (1989) administered the NCQ to two groups of university freshmen, in two consecutive years. There were 1644 freshmen in the first-year group and 478 in the second-year group. The NCQ was administered during the summer orientation for both groups. The properties of the instrument were examined to determine if the responses varied across the races and whether the items were content valid in their ability to measure the seven noncognitive dimensions: positive self-concept, realistic self-appraisal, understanding of and ability to deal with racism, preference for long-range goals over short-term or immediate needs, availability of a strong support person, successful leadership experience, and demonstrated community service. The results showed reliability and construct validity for the instrument. For White students, the noncognitive dimensions of self-confidence, preference for long-range goals over short-term or immediate needs, and realistic self-appraisal were most strongly related to grade point average. For Black

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students, the only noncognitive variables that were related to grade point average were positive self-concept and realistic self-appraisal. For White students, the NCQ significantly adds to the prediction of grades, while for Black students, it was related to both grades and enrollment status.

Since these earlier studies, many others have followed in this tradition of assessing the role of noncognitive variables in student's academic success (Baker, Gruber, & Milligan, 2015; Sedlacek, 2017). The studies are diverse and not necessarily focused on African American male students. However, they contribute to our understanding of noncognitive variables and academic success, and therefore they are reviewed along with those that focus on African American male students. For example, Stankov, Morony, & Lee (2014) studied noncognitive predictors of academic achievement by extending the measurement of the noncognitive variables in education to incorporate both social and psychological adjustment variables and rating of confidence in addition to these self-constructs. They found that confidence explained most of the variance in achievement, while measures of previous cognitive performance in combination with other noncognitive variables account for 40.5% of the total variance.

Further, Chiesi & Primi (2010) assessed student achievement in statistics courses, considering relationship between cognitive and noncognitive factors, and found that both cognitive and noncognitive factors influenced achievement. Likewise, Nasim, Roberts, Harrell, & Young (2005), using a sample of two hundred-fifty African American college students from two Predominantly White Institutions (PWIs) and two Historically Black Colleges and Universities (HBCUs) administered the Non-Cognitive Questionnaire-Revised (NCQ-R) and the Multidimensional Inventory of Black Identity (MIBI) to determine which psychosocial indices best predicted academic achievement across cultural contexts. They hypothesized that some noncognitive factors of academic achievement would generalize across institution-types, while others would be more context-specific. Results indicate that of the psychosocial indices that reliably predicted African American achievement, none generalized across institution-types. At PWIs, availability of academic support person, ability to understand and deal with racism, and humanist attitudes were the most reliable predictors of academic achievement.

At HBCUs, positive academic self-concept was the only noncognitive factor that surfaced as a good predictor of achievement for African Americans. The study underscores the importance of cultural context in determining noncognitive predictors of academic achievement for African American college students. Similar observations were also made by Ting (2000), who reported on the significance of noncognitive variables in the overall assessment of academic success. He suggested that recent studies have shifted the focus to noncognitive or nontraditional factors because these variables are more far-reaching, and provide the investigator with a more holistic view of the individual student. Sedlacek (2004, 2005, 2017) affirmed that noncognitive variables can provide alternative assessments that can be employed in developing and evaluating programs that are designed to improve students' academic success. Sedlacek maintains that noncognitive variables have been shown to go beyond the typical conceptualizations of student ability and allow researchers to examine variables relating to adjustment, motivation, and perceptions. Perhaps more importantly, Sedlacek noted, they allow the investigator to work with variables in student programs that correlate with student academic success, such as grades, retention, and graduation.

Moreover, noncognitive variables such as those that are examined in this study, are supported in the literature by the Self-Empowerment Theory (Tucker, 1999, 2002) and the Resilience Research Model (Brown, 2001; Garmezy, 1983; Winfield, 1991, 2000) which served as the study's theoretical framework. Both the Self-Empowerment Theory and the Resilience Research Model have underscored the significance of nontraditional and or psychosocial factors in the overall assessment of student's academic success. The Resilience Research Model looks at risk/protective factors, both internal and external, that ultimately influence the lives of individuals who have "beaten the odds" (Brown, 2001; Garmezy, 1983; Winfield, 1991, 2000). In general, resilience research examines how individuals respond to risk and protective factors which are a host of biopsychosocial determinants (physical features/appearance, self-perception, socioeconomic status, etc.) that are influenced by ones' interpersonal relationships and ones' overall interactions with one's environment.

Theoretical Framework

The Self-Empowerment Theory, as proposed by Tucker (1999) is a culturally sensitive theory that is based on research with African American youth and families to whom the theory is directed (Tucker, Chennaut, Brady, Fraser, Gaskin, & Dull, 1995; Tucker, Herman, Pedersen, & Vogel, 1997). Self-Empowerment Theory postulates that behavior problems and academic failure, as well as prosocial behavior and academic success, are significantly influenced by levels of (a) self-motivation to achieve academic and social success, (b) perceived self-control over one's behavior and academic success, (c) self-reinforcement for engaging in social and academic success behaviors, (d) adaptive skills for life success, and (e) engagement in success behaviors. In this study, the Self-Empowerment Theory, an academic success theory, coupled with the Resilience Research Model, a model of African American student success (Garmezy, 1983; Winfield, 1991; Brown et al., 2001), served as the theoretical framework to support Sedlacek's Noncognitive Variables Model (Sedlacek, 2004, 2017).

Extensive review of the literature on academic success among African American students, in general, and African American male students, in particular, led this researcher to the Self-Empowerment Theory, as espoused by Tucker (1999), and the Resilience Research Model, as presented by Garmezy, 1983; 1991; Rutter, 1991; Smith and Werner, 1992; Benard, 1997; Brown et al., 2001; Krovetz, 1999; & Winfield, 1991. These researchers identify positive peer and adult interaction, participation, cooperation, positive self-concept, sense of personal power, and sense of humor, as ultimately leading to academic success. Several features of the Self-Empowerment Theory and the Resilience Research Model appear throughout the literature, providing support for Sedlacek's noncognitive variables that was used as a frame for the present study. The inherent assumption of this study is that effective predictors of academic success among African American high school males are related to self-empowerment and resilience. Thus, in this study, the Self-Empowerment Theory and the Resilience Kesearch Model (Sedlacek, 2004, 2017).

Self-Empowerment Theory and Empirical supports

A great deal of research has been conducted to identify the factors in the lower academic performance of African American students. Tucker (1999) found that most studies have focused on factors in academic success that are external to African American children themselves. These are factors such as socioeconomic status, parent's attitude and education level, teacher behaviors and attitudes, and learning methods used in the classroom. African American children must, therefore, be taught to achieve under whatever conditions exist (Flennaugh, 2014; Hilliard, 2003; Howard, 2014; Perry, 2003). This theory also maintains that in order to facilitate the academic achievement of African American children, priority must be given to the modification of internal influences on children's academic and social behaviors such as self-control, while making efforts to modify the most direct and modifiable external influences, such as parents' and teachers' behaviors.

Connell, Spencer, and Aber (1994) provided empirical support for self-empowering African American children when they showed that self-variables such as perceived competence and perceived control directly influenced the children's engagement in learning behaviors, such as studying, which in turn directly influenced the children's grades and standardized test scores. Parental support, a social context variable, also had a significant but indirect influence on the children's grades and standardized achievement scores.

Tucker (1999) presented findings from five studies that she conducted with her research colleagues using samples of low-income African American families, which led to the self-empowerment theory of academic achievement. These research studies utilized a Difference Model research approach (Oyemadee & Rosser, 1980), which advocates identifying determinants of differences among African American students rather than focusing on their deficits compared to European American students. Tucker's five studies that eventually led to the formulation of her self-empowerment theory of academic achievement included students from first through twelfth grades who had one or more low grades, a weakness in math or reading, and mild behavior problems. More than 90% of the students had a grade point average (GPA) of less than 2.5. Following is a summary of each of the studies conducted and the major findings that are relevant to self-empowerment theory.

In the first study presented, Tucker and her colleagues examined adaptive skills (i.e., communication, socialization, and daily living skills), maladaptive behaviors, such as hitting and off-task behavior, frequency of school defiance, and school fighting as predictors of African American students' grade point averages (Tucker, Chennaut, Brady, Fraser, Gaskin-Butler, Dunn, & Frisby, 1995). The results of the study revealed that all the examined variables were significant predictors of grade point averages. In the second study which examined expressiveness, cohesion, and conflict in the family as predictors of student's maladaptive behavior and adaptive skills (Dunn & Tucker, 1993), only conflict in the family was found to be a significant predictor of maladaptive behavior.

In Gaskin-Butler & Tucker (1995), a study which investigated self-esteem as a predictor of African American students' grades, adaptive skills, and maladaptive behavior, the results for males showed that high self-esteem predicted high maladaptive behavior and low adaptive skills. Tucker, Vogel, Keefer, & Reid (2001) looked at African American student's math achievement motivation, self-control, and perceived social support from their primary caregiver, as predictors of maladaptive behavior and academic success, self-control was a significant predictor of

maladaptive behavior, accounting for 55% of the variance in maladaptive behavior. In other studies (Fisher, 2000; Gregory, 2000; Jordan, 1981; Tucker 1999), academic motivation was shown to be significantly associated with academic success of low-income African American students.

Resilience Theory and Empirical Supports

According to proponents of Resilience theory (Brown, D'Emidio, & Benard, 2001; Connell, Spencer, & Aber, 1994; Garmezy, 1991; Krovetz, 1999; Taylor, 1994; Werner, 1993, 2000; Winfield, 1991), an individual's response to his or her environment, whether successful or unsuccessful, is greatly affected by a host of risk (predisposition to danger) and protective (safeguard) factors. Risk and protective factors are biopsychosocial variables that can be either internal (biological) or external (environmental). When the protective factors outweigh the risk factors, the individual is believed to have a better chance at being successful. Resilience theory identifies protective factors present in the families, schools, and communities of successful youth that often are missing in the lives of troubled youth (Krovetz, 1999). When some of these protective factors are present, children develop resilience, that is, according to Krovetz (1999), the ability to cope effectively with adversity. Benard (1997) identified four common attributes of resilient children: social competence, problem-solving skills, autonomy, and a sense of purpose and future. Resilience theory proposes that these attributes are present to some degree in most people. Whether they are strong enough to help individuals cope with adversity, however, depends on the presence of protective factors during childhood.

Noncognitive Assessment Model

As noted throughout the document, especially in the theoretical framework and the literature review sections, the noncognitive variables (Sedlacek, 2004, 205, 2017), as employed in this study, are directly related to both the Self-Empowerment Theory (Tucker, 1999) and Resilience Theory (Werner & Smith 1992, Werner, 2000). Like the noncognitive variables, they both present alternative means of looking at academic achievement and success, by shifting the research focus from investigating cognitive or more static variables to the investigation of more alterable/noncognitive variables.

Methodology

The study used a correlational and predictive design, with elements of survey research design. It is a within-group study that employed a quantitative approach to determine the relationship between selected noncognitive variables and the academic success of African American high school males, grades 10 through 12 (Additional information on the study respondents are provided in both the Respondents and Sampling Procedure section and the Respondent Demographics section). The main research question was whether a statistically significant relationship existed between the seven noncognitive variables and the academic success of the study's respondents? The key hypothesis was that there is a statistical significant relationship between the noncognitive variables and the academic success of the respondents.

Specifications

The research study analyzed the relationship between seven independent variables (noncognitive variables) and one dependent variable, academic success, which is the sole criterion variable of the study. Several demographic variables were also examined to provide additional meaningful information on the respondents and their possible impact on the criterion variable. In this study, the independent variables were operationalized as factors outside of one's cognitive domain, referred to elsewhere as psychosocial factors

Independent variables (Noncognitive variables)

Sedlacek (2004, 2005) listed the seven noncognitive variables and operationalized them as follows: (1) positive self-concept; an individual with this characteristic possesses strong selffeelings, strength of character, determination, and independence; (2) realistic self-appraisal; the individual who conducts a realistic self-appraisal recognizes and accepts any deficiencies and works hard at self-development. Such an individual also recognizes the need to broaden his or her individuality, especially in important academic areas; (3) successfully handling the system (racism); a person characterized by this quality is realistic, based on personal experiences with racism. This person is not submissive to existing wrongs, nor hostile to society, nor a "cop out." Such individuals can handle a racist system and will assert their position as an agent to fight racism; (4) preference for long-term goals; the individual displaying this preference is able to respond to deferred gratification. He or she can set goals and can proceed for some time without reinforcement. These individuals are future-and past-oriented and do not see only immediate issues or problems. They show evidence of planning in both academic and non-academic areas; (5) availability of strong support person; having someone to turn to in crises is of great importance. Individuals displaying this characteristic have identified and received help, support, and encouragement from one or more specific persons. They do not rely solely on their own resources to solve problems. They are not loners and are willing to admit they need help when it is appropriate; (6) leadership experience; an individual gains leadership experience through various areas pertinent to his or her background (e.g., gang leader, sports, and non-educational groups). Individuals who possess this characteristic have shown evidence of influencing others in academic or nonacademic areas. They are comfortable providing advice and direction to others and have served as mediators in disputes or disagreements among peers. They are comfortable taking action where it is called for; (7) community involvement; by demonstrating community service, the individual demonstrates involvement in his or her cultural community. Individuals who display this characteristic are identified with a group that is cultural, racial, or geographic. They have specific and long-term relationships in a community and have been active in community activities over a period of time. They have accomplished specific goals in a community setting.

Dependent variable

Academic Success was the single dependent variable of the study. It is the criterion variable that the study attempted to predict. For this study, academic success was operationalized as the subject's cumulative Grade Point Average (GPA). Students with a cumulative GPA of 2.50 and above were classified as academically successful. A cumulative GPA of 2.50 was selected to operationalize academic success because a 2.50 GPA is a standard requirement for general admission to state universities in the state where the study was conducted; In addition, several other colleges and universities, both local and national, accept the 2.50 cumulative GPA as a minimum requirement for admission.

In the respondents' school district, students can receive weighted credit value in some courses because the courses are more or less rigorous. In Advanced Placement (AP) and International Baccalaureate (IB) courses, an A=5.0, a B=4.0, a C=3.0, a D=2.0, and an F=0.0 In Honors and Pre-IB courses, an A=4.5, a B=3.5, a C=2.5, a D=1.5, and an F=0.0. In Modified courses (select special education), an A=3.5, a B=2.5, a C=1.5, a D=.5, and an F=0.0. The weighted cumulative grade point average (WGPA) is determined the same as above, a student's total grade points earned are divided by the total of course credits attempted. Courses in which a student does not receive a grade, such as pass/fail and audited courses, do not factor into the WGPA calculation.

Respondents and Sampling Procedure

Respondents for the study were selected from five high schools of an urban public school district, located in the eastern region of Virginia. The schools were labeled as HS I, HS II, HS III, HS IV, and HS V. The study included African American male students from all five high schools, in grades 10 through 12. Students from the 9th grades were not included in the study because their Grade Point Averages were generally not recorded until the end of their second semester in high school.

The Noncognitive Questionnaire (NCQ) was used to collect the data. Tracey and Sedlacek (1984) developed the NCQ to quantitatively assess each of the seven noncognitive variables. It is designed to assess attributes that are not typically measured by other instruments and may be a common way for persons with nontraditional experiences to show their abilities (Sedlacek, 2004). It is a pencil and paper survey that provides a quantitative assessment of seven noncognitive variables that are indicative of academic success. Several studies have demonstrated the effectiveness of the NCQ in predicting academic success for various groups of students (Ancis & Sedlacek, 1997; Boyer & Sedlacek, 1988; Sedlacek, 1989, 1998, 2003, 2004, 2005, 2017; Ting, 2000; Tracey & Sedlacek, 1984, 1985, 1989). It contains 23 items: 18 Likerttype items pertaining to educational expectations and self-estimates, ranging from strongly agree (1) to strongly disagree (5), 2 nominal items which assess educational aspirations, and 3 openended items pertaining to present goals, past accomplishments, and involvement in community and leadership activities. Each of the items is a question which asks respondents about attitudes, present goals, educational aspirations, past accomplishments, and involvement in community and leadership activities.

Scoring the NCQ

The NCQ is scored by using a scoring key provided by the developers (Tracey & Sedlacek, 1984). This key is used to score participant responses to every item on the NCQ. Individual items are categorized into one of the seven non-cognitive dimensions. Positive Self-Concept or Confidence (I) is scored by items, 7, 9, 10, 23, 20, and 28. Realistic Self-Appraisal (II) is scored by items 9, 12, and 21. Scores from items 11, 18, 22, 26, and 27, are used to assess Understands and Deals with Racism (III). Items 8A, 13, and 19 are used to score Prefers Long-Range Goals to Short-Term or Immediate Needs (IV). A fifth non-cognitive variable is the Availability of a Strong Support Person (V) and is scored by items 15, 24, and 25. Leadership Experience (VI) is scored using items 14, 17, and 29A. Demonstrated Community Service (VII) is scored by items 16 and 29 B. Each item response is assigned a corresponding numerical value. For NCQ questions that have more than one response, the user is instructed to calculate and round off the mean score to the nearest whole number. Scores for each NCQ variable are computed by complex algorithms that are provided in the scoring key (Tracey & Sedlacek, 1984). A high score on an NCQ variable indicates a greater strength in that noncognitive variable. The lowest and highest possible scores for all scales are presented in Table 1.

Table 1

Lowest and Highest Possible Scores of the seven Noncognitive Scales Measured by the Noncognitive Questionnaire (NCQ)

Scale		Lowest	Highest	
I.	Positive Self-Concept or Confidence	7	27	
II.	Realistic Self-Appraisal	4	14	
III.	Understands and Deals with Racism	5	25	
IV.	Preference for Long-Range Goals	3	13	
V.	Availability of a Strong Support Person	3	15	
VI.	Leadership Experience	3	13	
VII.	Community Service	2	8	

In the initial validation studies for the NCQ, Sedlacek & Adams-Gaston (1992) obtained a median coefficient alpha reliability estimate of .83. Tracey & Sedlacek (1984a) reported twoweek test-retest reliability estimates on NCQ scores ranging from .74 to .94, with a median of .85 for the NCQ items with differing samples. Interrater reliability on scores from the three openended NCQ items ranged from .73 to 1.00. In this study, the reliability analysis showed an alpha of .79.

Findings and Data Analysis

Since the study attempted to investigate the relationship between one dependent variable (DV) (academic success) and seven independent variables (IVs) which were the noncognitive variables discussed throughout the study, Correlation and Regression analyses were employed to identify the degree of the relationships between the independent variables and the dependent variable, and the ability of the independent variables to predict the dependent variable.

The data analysis was conducted in two phases. Frequency distributions and cross tabulations were used to display demographic data on the sample. Bivariate correlation and regression was used to evaluate the strength of relationship between the dependent variable and each of the seven independent variables. In addition to employing bivariate correlation and regression analysis to investigate, individually, each independent variable's relationship to the dependent variable, a second phase of analysis was employed using Multiple Regression analysis to establish which independent variable contributed the most to variance in the dependent variable, a sequential multiple regression selected the independent variables, one at a time, by their ability to account for the most variance in the dependent variable. Pearson Product-Moment correlations were used to test each part of the central hypothesis: A significant relationship existed between the selected seven noncognitive variables and the academic success of the research respondents.

The aim of the study was to examine the validity of the Noncognitive Questionnaire (NCQ) (Sedlacek, 2004, 205, 2017; Tracey & Sedlacek, 1984) in predicting academic success among African American high school males, grades 10th - 12th. Thus, the research question explored was whether a statistically significant relationship existed between the seven noncognitive variables and the academic success of African American high school males, grades 10th through 12th?

Respondent Demographics

Tables 2 and 2(a) presents information on the number of respondents, specific to each of the five high schools in the study (HS I, HS II, HS III, HS IV, and HS V). Table 2 identifies the number of respondents, who completed the NCQ and attached their student identification number, as was requested. Without a student's identification number, it was not possible to access his WGPA, thus, those respondents who failed to include their student identification number on their completed NCQ were not included in the data analysis.

Total Respondents who Completed the NCQ		Number of NCQs with Student ID	
HS I	128	78	
HS II	229	145	
HS III	111	64	
HS IV	62	51	
HS V	117	82	
Missing = 16			
Total (usal	ble NCQ) = 436		

Table 2

Table 2 (a)

Frequencies and Percentages of Respondents for each High School (N = 436).

High School	Frequency	Percent
HS I	78	17.9
HS II	145	33.3
HS III	64	14.7
HS IV	51	11.7
HS V	82	18.8
Total	420	96.3
Missing	16	3.7
Total	436	100.0

The total sample included in the study consisted of 436 African American high school male students, grades 10^{th} through 12^{th} in the five high schools of an urban public school system. The mean age of the respondents was 16.11 years, (S D =.892), with 13 (outlier) as the minimum age and 21 as the maximum. Table 3 presents the frequencies and percentage of the ages for the total sample. Most the students were in the fifteen to seventeen age ranges. There was one outlier, age 13, three 14-year olds, four 19-year olds, and one 21-year-old.

Table 3

Ages of Respondents (N = 436).

Age	Frequency	Percent
13 (outlier)	1	0.2
14	3	0.7
15	114	26.1
16	157	36.0
17	156	35.8
19	4	0.9
21	1	0.2
Total	436	100.0

Presented in table 4 are the frequencies and percentages of the respondent's grade levels. Most respondents were in the tenth grades, N=189 (43.3%). The second largest group of respondents came from the eleventh grades, N=125 (28.7%); this was almost the same size as the twelfth-grade group N=120 (27.5%). There were two missing items, students who did not include their grade level on the questionnaire.

Table 4

Grade Level of R	espondents	
Grade Level	Frequency	Percent
10	189	43.3
11	125	28.7
12	120	27.5
Missing	2	0.5
Total	436	100.0

Table 5 provides some information on the criterion variable, academic success that was operationalized as the respondents weighted GPAs. Respondents with a WGPA of 2.50 or higher were considered academically successful. Respondents whose WGPA were below 2.50 were considered academic underachievers. From the total sample of respondents (N=436), 28.2% (N=123) were considered academically successful, and 54.8% (N=239) were considered academic underachievers.

Table 5

Weighted G P A of Respondents

	Frequency	Percent
GPA less than 2.50	239	54.8
(Underachiever)		
GPA 2.50 or higher	123	28.2
(Success)		
Total	362	83.0
Missing	74	17.0
Total	436	100.0

Descriptive Analysis

Initial analysis consisted of the mean levels and correlations for the independent variables. Table 6 specifies the mean, standard deviations, as well as the minimum and maximum values. Observation of the mean and standard deviations shows that, of the seven predictor variables, *realistic self-appraisal* (M = 7.21, SD = 1.49), *availability of a strong support person* (M = 12.95, SD = 1.97), and *leadership experience* (M = 7.32, SD = 1.49), has low variability and high similarity, indicating statistical significance to the criterion variable.

Table 6

Mean and Standard Deviations for Predictor Variables in the Stu	dy.
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Variable	Ν	Min	Max	Mean	Std. Deviation
Weighted Grade Point Average (WGPA)	362	1.00	2.00	1.3398	.47429
Positive Self-Concept	243	12.00	117.00	19.2593	6.67383
Realistic Self-Appraisal	432	2.00	10.00	7.2060	1.48986
Successfully Handling the System	426	8.00	114.00	17.4038	5.39903
Preference for Long-term Goals	434	3.00	104.00	7.7258	6.70293
Availability of a Strong Support Person	430	4.00	15.00	12.9465	1.97406
Leadership Experience	428	2.00	10.00	7.3248	1.48518
Community Involvement	236	1.00	99.00	4.4610	9.17322

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Correlational Analysis

Initially, a correlational analysis was conducted to assess the criterion variable's relationship to the seven independent variables. Of the seven predictor variables, three (Leadership Experience, Realistic Self-Appraisal, and Availability of a Strong Support Person) were found to be statistically significant to the criterion variable. The central hypothesis (all seven noncognitive variables are statistically significant to the academic success of African American High School Males, grades $10^{th} - 12^{th}$) was supported in only three of its seven subparts. Table 7 presents the detailed outcome of this Pearson Correlation analysis.

The correlation coefficients are computed between the criterion variable and the predictor variables using the total sample (N = 436). The seven part hypothesis of the study tested as follows: (1) Positive Self Concept was found to have no statistically significant relationship to the criterion variable, (2) Realistic Self-Appraisal was found to have a statistically significant relationship to the criterion variable (r = .103, p = 0.05, 1% of the explained variance for the criterion variable), (3) Successfully Handling the System (Racism) was found to have no statistically significant relationship to the criterion variable, (4) Preference for Long-term Goals was found to have no statistically significant relationship to the criterion variable, (5) Availability of a Strong Support Person was found to have a statistically significant relationship to the criterion variable (r = .252, p = 0.01, 6% of the variance for the criterion variable), (6) Leadership Experience was found to have a statistically significant relationship to the criterion variable (r = .169, p = 0.01, 3% of the variance for the criterion variable), and (7) Community Involvement was found to have no statistically significant relationship to the criterion variable).

Pearson Correlations	Matrix of NCQ Subsc	ores and WGPA.		
NCQ Predictor	WGPA Posit	WGPA Positive		
Variables	Self-C	Concept	Self-Appra	uisal
WGPA	1	.031	.103*	
NCQ Predictor	Successfully	Preference	ce for Av	ailability of
Variables	Handling the	Long-term	Strong Sup	oport
	System (Racism)	Goals	Person	-
WGPA	.074	.002	.252**	
Positive Self-Concept	170	001	040	
Realistic Self-Apprais	al 0.243**	.070	.237**	
Successfully Handling	g 1	.040	.209**	
The System (Racism)	-			
Preference for	.040	1	.102*	
Long-term Goals				
Availability of a	.209**	.102*	1	
Strong Support Person	1			
Leadership Experience	e .137**	.059	.189**	
Community Involvem	ent004	.472**	.011	
Note: N = 436 ** Correlation is Significant at the 0.01 Level				

* Correlation is at the 0.05 Level

Table 7	(cont.)
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Table 7

NCQ Predictor Variables	Leadership Experience	Community Involvement
WGPA	.169**	.006
Positive Self-Concept	.085	021
Realistic Self-Appraisal	.184**	020
Successfully Handling	.137**	004
The System (Racism)		
Preference for	.059	.472**
Long-term Goals		
Availability of a	.189**	.011
Strong Support Person		
Leadership Experience	1	026
Community Involvement	026	1

Note: N = 436

**Correlation is Significant at the 0.01 Level *Correlation is at the 0.05 Level

Multiple Regression

Table 8 presents the results of the multiple regression analysis for the full model of predictor variables. The Regression coefficients (beta weights) shows the proportion of the variance (variability) in the criterion variable (academic success/GPA), .01 (1%), that could be accounted for by the seven predictor variables. In other words, the multiple regression explains only one percent of the variance in the criterion variable.

Table 8

Variables SE B В В Positive Self-Concept -.019 .033 -.043 Realistic Self-Appraisal .013 .043 .024 Successfully Handling -.016 .082 -.016 The System (Racism) Preference for -.012 .034 -.026 Long-term Goals Availability of a .023 .023 .077 Strong Support Person Leadership Experience .039 .003 .005 Community Involvement - 004 005 -.049 Note. R - Square = .010(1%)

Regression Analysis for Variables Predicting Academic Success (N = 436)

Discussion

A Pearson correlation analysis found that three of the selected noncognitive variables (Leadership Experience, Realistic Self-Appraisal, and Availability of a Strong Support Person) were significantly related to academic success, while the other four (positive self-concept, successfully handling the system (racism), preference for long-term goals, and community involvement) were not. Multiple regression analysis showed that only 1% of the variance in the criterion variable (academic success/GPA), could be accounted for by the seven predictor variables.

Apart from three independent variables, the findings suggested that the other noncognitive variables did not show any predictive influence on the academic success of African American high school males, in the 10th through 12th grades. This was an unanticipated finding. The variables that were found to be statistically significant to the academic success of African American high school males were availability of a strong support person, leadership experience, and realistic self-appraisal. Each of these three variables are also presented in the literature as being highly influential in the academic success of African American male students. They are supported in both the self-empowerment and the resiliency literature, both of which served as the theoretical framework for the present study (Brown, 2001; Garmezy, 1983; Tucker, 1999, 2001; Winfield, 1991). Specifically, the presence of a strong support person can be considered within

the framework of resilience theory as a strong protective factor that enhances success in other domains of life, such as leadership and realistic self-appraisal.

While the study results are positive, it is also important to note that the other variables were not predictive. And this raises the question of whether a sample of students, some of whom had low GPAs, such as the ones used in the present study, was the most appropriate sample to assess the NCQ's usefulness as an effective predictor of academic success among African American high school males, such as the respondents in the study sample. Thus, the need to examine a group of African American high school males who have an established record of academic success is apparent. Student groups such as "college bound," "honors," and "advanced placement" come to mind. These students may provide a better opportunity to discover new psychosocial variables that influence academic success and to better assess the effectiveness of the NCQ. Also, generated from observing the outcome of the study is the thought that a second criterion variable may have yielded more useful information. A second criterion variable could have possibly provided more exploratory capacity to the study and provide more answers to the research question. A stepwise regression analysis would show the statistically significant predictive value of the NCQ when used with a second criterion variable such as Standards of Learning (SOL) scores, or some other popular standardized or cognitive measurement.

Conclusion and Implications

Theoretical Implications

The primary aim of this research study was twofold; first the researcher attempted to present an empirically based case for the use of noncognitive variables as an effective alternative approach for assessing and predicting academic success among African American high school males. Second, the research seeks to add to the existing body of empirical evidence that support the use of noncognitive variables in the assessment and prediction of academic success among African American high school males. As previously cited in this work, the idea of using noncognitive indicators to predict students' academic potential has been espoused most notably by William Sedlacek and his colleagues in a variety of studies (Sedlacek, 2004, 2005, 2017). Their efforts have focused on the differential use of noncognitive variables for various ethnic and racial groups, and these studies have indicated the use of noncognitive variables to be a valid academic assessment measurement for African Americans and other groups who typically fare poorly on standardized tests, more notably, the Scholastic Assessment Test (SAT) and American College Testing examinations (ACT). Both Self-Empowerment theory (Tucker, 1999) and Resiliency Theory (Garmezy, 1983; 1991; Rutter, 1987; 1991; Smith and Werner, 1992; Werner, 2000), the two theories that made-up the theoretical framework for this research study, lend support to Sedlacek's noncognitive variables model (Sedlacek, 2004, 2005, 2017). The noncognitive variables are related to both the self-empowerment and resilience theories. Empirical evidence of the relationship or similarities between these two theories and the noncognitive variables model are presented throughout this work. It is therefore safe to suggest that the academic success of African American high school males is influenced by selfempowerment and resilience, and it is essential that these underpinning theories be used to frame future research in this area.

Policy and Social Work Practice Implications

The findings from this research study are useful in exploring issues of academic achievement/success among African American high school males in general. Of the seven noncognitive variables examined, three are supported in the self-empowerment and the resiliency literature and point to the possibility that schools could develop programs that are aimed at reinforcing these variables.

The results of this study show that the Noncognitive variable, "availability of a strong support person" was significantly related to academic success. In a young person's world, strong support persons could be parents, teachers, and social workers, therefore promoting the relationship between young African American male students and such strong support persons could enhance their chances of academic success. Indeed, Kunjufu, 2002; Ladson-Billings, 1994, 2012; Lynn, Totten, Bridges, & Jennings, 2010; and Perry, 2003, have cited the significance of student-teacher relationship as a key factor in the promotion of student achievement. These authors believe that when teachers expect students to do well, the students generally work harder and produce better work. It is essential that professionals in the lives of young people, example, teachers and support workers, support these types of strong relationships as catalyst for academic success. School social worker can assist by creating an environment that would promote and support the noncognitive variables (realistic self-appraisal, availability of strong support person, and leadership experience) that this research study has found to be statistically significant to academic success among African American high school males, in grades 10 through 12.

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