

THE IMPACT OF SPORTS PARTICIPATION ON THE ACADEMIC
ACHIEVEMENT OF AFRICAN AMERICAN GIRLS

by

Sarita Singleton

Liberty University

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Of the Requirements for the Degree

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ABSTRACT

Although there are several educational benefits resulting from participation in high school sports, African American students do not always experience the positive outcomes that other populations share. The purpose of this causal comparative study was to investigate the effect of athletic participation on the academic achievement of African American high school female students. The sample consisted of 100 female African American 12th-grade students.

Descriptive statistics were collected and analyzed. Analysis involved archival data to determine the grade point averages and graduation rates of student athletes and non-athletes in two urban high schools in Georgia. The study sought to determine if there was a statistically significant disparity between the grade point averages and graduation rates of student athletes and non-athletes and between single sport athletes and multiple sport athletes. Results indicate that there is no statistically significant difference in the grade point averages and graduation rate of student athletes and non-athletes. They also indicate that there is no statistically significant difference in the grade point averages and graduation rate of student athletes who participate in a single sport and those that participate in multiple sports. Findings suggest that participation in athletics should continue to be an area of focus for educational stakeholders as it relates to academic achievement. Recommendations for future research are provided.

Keywords: African American, sports, graduation, achievement, high school, female, student athletes

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This dissertation would not have been possible without the support of my mother. I cannot even begin to describe my gratitude for all that she has done for me. My only hope is that I will continue to make her proud.

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CHAPTER ONE: INTRODUCTION

Researchers (e.g., Blair & Morris, 2009; Taylor & Turek, 2009; Triggemann, 2007) consistently document positive outcomes from engaging in athletics at all age levels. Regular physical activity in childhood and adolescence improves strength and endurance, helps build healthy bones and muscles, helps control body weight, reduces anxiety and stress, increases self-esteem, and may improve blood pressure and cholesterol levels (U.S. Department of Health and Human Services, 2008). Furthermore, educational developmental researchers consistently recognize athletic participation as one of the critical agents in developing positive peer association and higher self-esteem among adolescents (e.g., Barber, Eccles, & Stone, 2001; Broh, 2002; Mahoney et al., 2003). Having high self-esteem and being socially accepted are key factors that contribute to positive feelings associated with school, which consequently lead to better academic performance. While any benefits from sports participation is noteworthy, the academic benefits alone are substantial enough to warrant the attention of students, parents, and educational stakeholders nationwide in line with efforts to address the persistent achievement gap and extensive percentage of high school dropouts (Greene & Winters, 2006; Princiotta & Reyna, 2009).

According to the National Association of Educational Progress (NAEP) the nationwide gaps in 2007 were narrower than in previous assessments at both grades 4 and 8 in mathematics and at grade 4 in reading. White students, however, had higher scores than Black students, on average, on all assessments. White students had average scores at least 26 points higher than Black students in each subject, on a 0-500 scale. NAEP reports show that the achievement gap for African American and White students is narrowing, but it is still substantial. Other recent reports from the NAACP Legal Defense and Educational Fund and the National Women's Law Center comparing the graduation rates, college readiness rates, and retention rates of African

American female students to White female students also indicate that the achievement gap persists (Smith-Evans & George, 2014). According to these reports African American students have a lower percentage of students meeting college readiness benchmark scores on the ACT, have lower on time graduation rates and have higher retention rates in high school than White students.

The past half century has witnessed considerable gains in educational attainment in the United States (NAEP, 2015). The graduation rates for both African American and White students have increased. Between 1950 and 2005, the percentage of young White adults ages 25-29 who had completed high school rose from 56 to 93, and for Black young adults it increased from 24 to 86. Unfortunately, at least one student in five still drops out of school, and nearly 5 million aged 18-24 years lack a high school diploma (Princiotta & Reyna, 2009). Many students who drop out of high school never go back to school to earn a high school diploma (Swanson, 2003). While there are many factors contributing to the high dropout rate, ultimately, educational stakeholders need to recognize the dangers that dropping out of school presents. Dropping out of school is dangerous not only to those students quitting school, but also to those remaining in school. Annually, dropouts cost the United States more than 300 billion in lost wages and increased public-sector expenses (Princiotta & Reyna, 2009). Decreasing dropout rates not only expands opportunities by paving the way for success in college, career, and life but also engenders stronger communities, enhanced civic life, and an improved workforce (Princiotta & Reyna, 2009). In 2003, only 55% of black students graduated from high school on time with a regular diploma (Greene & Winters, 2006). The high school dropout crisis must be addressed immediately. Low achievement is a precursor to high school dropout, and unfortunately, African American students are dropping out of high school at a greater rate than White or Asian-American students. Encouraging participation in school sports can help promote academic

achievement as well as provide an opportunity to achieve health-promoting physical activity (Bradley, Keane, & Crawford, 2013).

Most research findings indicate that students who participate in school-sponsored athletic teams typically perform better in school than those who are not involved in athletics (Fredricks & Eccles, 2006; Fujita, 2006; Nelson & Gordon-Larsen, 2006). Physical education and school sports are also viewed as beneficial educational attainment (Bailey et al., 2009). A qualitative study involving observations and interactions with student athletes and their families and friends identified five ways that participation in sports promoted student success: structuring schedules, creating incentives, building confidence, developing positive adult and peer role models, and getting students to develop future aspirations (DeMeulenaere, 2010). Findings from another study also reveals that high school sports participation increases college aspirations, which consequently increases academic performance (Mahoney, Cains, & Farmer, 2003),

Yet, despite the plethora of research on the positive role athletic participation has on students (e.g., Ebie, 2006; Overton, 2001; Troutman & Durfur, 2007), a gap in literature exists on the impact of sports participation on the academic achievement of minority female students. The vast majority of research on sports in the educational environment focuses on the effects of high school athletic participation on White and African American males, emphasizing the differences between two groups regarding association between athletic participation and academic achievement, and educational and occupational attainment (Broh, 2002; Guest & Schneider, 2003; Videon, 2002).

Much of the educational literature and policy discussion have been devoted to the persistent achievement gap between minority students and White students for decades (Bainbridge & Lasley, 2002). While it is important to bridge the achievement gap between White and minority students, it is equally important to examine what contributes to achievement

gaps among African American students. It appears as though many researchers assume factors contributing to the achievement gap are the same or similar for all minority groups (Bowman, 2001). The truth is that there are differences within minority groups. The practice of lumping together data from all students of color, and even data from divisions within a group, is a mistake bound to produce poor policy choices and detrimental educational practices (Ramirez & Carpenter, 2005). Thus, it is important to examine factors contributing to the high achievement of African American girls instead of grouping all African American students together. If participation in sports does contribute to higher academic achievement for African American girls, then the necessary steps can be taken to promote the number of sports participants. This study sought to contribute to the existing literature on the role of sports for African American adolescents by solely focusing on academic achievement.

Despite significant gains in female participation with Title IX, African American girls are still behind their peers in sports participation and physical activities (Taylor & Turek, 2009). Research typically suggests that athletic participation in school-aged children has many benefits, one of which includes a positive effect on education. Youth sports participation also relates to increased social competence, problem-solving skills, self-esteem, self-efficacy, locus of control, academic achievement, and school attendance, and it reduces juvenile arrests, teen births, and school dropouts (Taliaferro, Rienzo, & Donovan, 2010). Despite the large body of evidence on the benefits of sports, there continues to be growing concern regarding the overemphasis on sports, especially related to the social and educational development of African American and other minority youth (Dawkins, Braddock, & Celaya, 2009). There is limited research available on the impact sports has on the educational endeavors of all minority children, especially minority girls. This research sought to explore the connection between participation in high school sports and the academic achievement of African American girls. The debate over

whether sports participation impedes or enhances mobility may not be a debate at all since the connection between sports participation and academic engagement of students may result in either or both outcomes, along with other possibilities (Dawkins et al., 2009).

Perhaps the most relevant theory to understanding the impact that participating in athletics has on African American students is the Promoting Achievement in School through Sports (PASS) theory. The American Sports Institute (ASI, 2015) established this theory in 1992 on the premise that athletics become a guide for improving students in the classroom as well as on the playing field. It encompasses the positive attitude and attributes of participating in sports and brings them into the classroom. ASI views athletics as a solution to poor academic performance in school, and believes sports offer the best possible path for challenge, engagement, learning, and achievement (ASI, 2015).

The attribution theory (Heider, 1958; Weiner, 1985), which encompasses motivation, was also explored in this particular study. Probably the most influential contemporary theory with implications for academic motivation, attribution theory incorporates behavior modification because it supports the idea that students are motivated by the outcome of being able to feel good about themselves. According to the attribution theory (Weiner, 1985), individuals try to master their environments by understanding the causal determinants of events. Students' beliefs about why they may or may not be successful in various pursuits can influence the extent to which they are likely to invest effort in those pursuits, which in turn affects the level of achievement likely to be experienced (Rosevear, 2010). Students who are motivated tend to be self-regulated learners, which refers to the process of learners actively taking control and responsibility for their learning (Erlich & Russ-Eft, 2011). Student athletes' desires to be successful and their beliefs in their abilities transfer from the athletic field to the classroom.

Although these theoretical contexts guide the assertion that athletic participation increases academic achievement for students in general, this study specifically targeted African American female high school students. Unfortunately, there is a disparity in sports participation between African American female students and White female students, and this imbalance carries over to the academic achievement of those same groups. The majority of African American students attend schools in urban areas, and unfortunately, urban school systems that educate large populations of African American students often lack basic resources and highly trained teachers (Carey, 2004; Fultz & Brown, 2008; Orfield & Lee, 2005). This further validates the imbalance that exists in the quality of education of African American and White students. Urban schooling for low-income and minority youth is commonly inadequate when compared to schooling provided for middle-class whites (Fultz & Brown, 2008). This disparity may contribute to the vast achievement gap between African American students and White students. However, the goal of this study was not to solve the problem of educational inequities in the American educational system, although the researcher acknowledges that they do exist. Instead, the goal was to investigate a school factor that may potentially enhance the academic performance of minority students.

Problem Statement

The relative absence of research on African American females in the athletic and academic spheres may result from a larger ideological problem—a society built on the primacy of race that presupposes equality between race and gender, and such a theoretical orientation to African American social development discourages research specifically focused on the lives of African American females or encourages the view that it is redundant or even unscientific (Hawkins & Mulkey, 2005). There is a wealth of research investigating factors leading to the low performance of African American students in school (e.g., Hodge, Harrison, Burden, &

Dixson, 2008; Motley-King, 2008; Spence, 2000), but attention is rarely given to African American females. In addition, the social development of African American females does not receive the same attention from researchers as that of their ethnic-gender peers (Hawkins & Mulkey, 2005).

Historically and currently, athletic participation is still the most popular schools sponsored extracurricular activity in the United States; and interscholastic competitive athletic programs receive substantial attention, funding, and resources (Broh, 2002; Miller et al., 2005). This is due in part to consistent research findings that suggests that sports participation improves the educational progress for students (Broh, 2002). However, evidence suggests that race and ethnicity shape the relationship between interscholastic sports participation and education (Peguero, et al., 2013); the pattern of interscholastic sports participation (Feldman & Matjasko, 2005, 2007), and the benefits resulting from interscholastic sports participation (Erkut & Tracy, 2002; Marsh & Kleitman, 2003a) both vary by race and ethnicity.

Academic achievement and its predictors have been an important topic of study for educational researchers and policymakers for many decades (Stewart, 2008). An achievement gap between African American and White students has been documented consistently at all educational levels (e.g., Simms, 2012). According to the National Assessment of Educational Progress (2014) state and federal policies have attempted to narrow the achievement gap for decades, but the gap for Whites and African American has remained steady and in some instances, widened. The nation's report card on America's high school seniors in 2013 showed gains in the percentage of African American students scoring at or above basic and at or above proficient in math and reading between 2009 and 2013, but those gains did nothing to narrow the broader achievement gap between them and their White peers (NAEP, 2014). Researchers have sought to explain why some students achieve at higher levels than others do, and what factors

contribute to these differences (e.g., Stewart, 2008). If in fact athletic participation has a positive effect on the academic achievement of African American girls and can be used to teach positive habits leading to increased academic achievement, then it is critical to encourage their athletic participation and to enact policies that build upon elements that positively impact their academic performance in school.

Numerous studies have reported that racial and ethnic minority student participation in sports improves their self-esteem, grades, test scores, and educational retention (Erkut & Tracy, 2002; Marsh & Kleitman, 2003; Miller et al., 2005). However, literature has emerged that suggests sports participation may impede racial and ethnic minority students' educational progress, especially for the students who are already academically marginalized, because sports participation distracts them from their studies (Coakley, 2004). Although there are several educational benefits resulting from participation in high school sports, African American students do not always experience the positive outcomes that other populations share (e.g., Eitle & Eitle, 2006). In a comprehensive sociological study on sports participation and African American student academic performance, Tamela and David Eitle (2006) found African American boys are more likely than their White counterparts to play football and basketball, and White boys are more likely to play all other sports. These racialized patterns of participation and self-selection are crucially important because participation in sports like basketball and football appear to be less likely linked with academic achievement, and may even be associated with more negative effects, but positive correlations are the most pronounced in participation in all other sports (e.g., Eitle & Eitle, 2006). Furthermore, there is a gap in the literature on the impact athletic participation has on African American girls. Today, girls account for nearly 42% of all high school athletes, and this participation rate is the highest that it has ever been (National Federation of State High School Associations, 2013). American courts and the United States

Legislature have labeled women's and girls' sports an integral part of education (Pusch, 2014). Yet, African American girls are still significantly behind their White counterparts when it comes to athletic participation and academic achievement. This research focused on identifying relevant factors that influence African American girls' commitment to participation in high school athletics and delineating the impact sports participation has on academic achievement. The researcher also hoped to explore the factors contributing to African American students' academic success while participating in school-sponsored athletics.

Purpose Statement

The purpose of this causal comparative study was to investigate the association between athletic participation and the academic achievement and high school graduation rates among African American high school female students. A varied selection of extracurricular activities and a successful athletic program are often critical components in the overall success of a school. However, the discussion of the literature revealed that the consensus regarding the positive effect that athletic participation has on academic performance remains debatable. The goal of this study is to determine if a relationship exists between participation in high school sport and grade point average and graduation rate. The population for this study will be African American female high school students in an urban area of Georgia. If a positive relationship between participation in high school athletics and academic achievement does exist, then educational stakeholders should put effort into recruiting, motivating, and encouraging more African American female high school students to get involved in school-sponsored sports.

Significance of the Study

Research on sports participation for distinct racial and ethnic youth is limited and inconsistent (Peguero et al., 2013). According to Feldman and Matjasko (2007) African American children are more likely to participate in athletics than any other racial or ethnic group;

although, Miller et al. (2005) found similar patterns of sports participation for White children as well. There has been a trend in education to promote interscholastic sports participation for African American students because it is believed to be a vehicle that facilitates educational progress, success, attainment and adult health, stability, and success (Dawkins, Williams, & Guilbalt, 2006; Braddock, Hua, & Dawkins, 2007; Leeds, Miller, & Stull, 2007). Furthermore, African American and Latino American youth are socialized to believe, often with racist undertones that sports participation will lead to educational and economic opportunities (González, Jackson, & Regoli, 2006). Yet even with the extensive research on the role of athletics and the education of African American students, the literature that focuses explicitly on African American girls regarding their experiences and outcomes from sports participation is sparse (Taylor et al., 2012). There appears to be a trend in examining the impact of sports participation on African American males, yet there are few research studies that investigate the sports participation of African American girls. Although African American females are not considered to be as academically endangered as African American males, the academic needs of African American females must not be overlooked. Exploring the connection between participation in school-sponsored athletics and the academic benefits in promoting African American high school girls' educational development, aided the researcher in identifying factors influencing commitment to participation in high school athletics and assessing the impact it has on academic success.

This study is significant because it addresses the needs of African American female high school students attending schools that serve predominately black students. A high-poverty, majority-minority high school is five times more likely to have weak promoting power (promoting 50% or fewer freshmen to senior status within 4 years) than schools that serve majority White students, and in 31 of 49 states, school districts with the highest minority

enrollments get fewer resources than school districts with the lowest number of minorities enrolled (Balfanz & Legters, 2004). These 31 states educate six out of every 10 minority children in America (Carey, 2004). The majority of African American students in the United States attend schools that serve predominately African American students, and more than 60% of Black students attend schools where more than 50% of the school population lives in poverty, compared to 18% of White students (Orfield & Lee, 2005). These facts shed light on the reality that most African American students are concentrated in schools with limited resources in impoverished areas. Because the setting of this study reflected the educational environment and school experiences of most African American students, the knowledge gained from the results of this study is applicable to a larger group of African American students nationwide. These results may also shed light on the racial inequalities that still exist in the American educational system.

Research Questions

The following research questions guided this study:

RQ1: Do African American female student athletes demonstrate higher grade point averages in the core subjects of English, science, social studies, and math than African American female students who do not participate in high school sports?

RQ2: Are African American female student athletes more likely to graduate than African American female students who do not participate in high school sports?

RQ3: Do African American female student athletes who participate in a single high school sport demonstrate higher grade point averages in the core subjects of English, science, social studies, and math, than African American female student athletes who participate in multiple high school sports?

RQ4: Are African American female student athletes who participate in a single sport more likely to graduate than African American female students who participate in multiple high school sports?

Definitions

Terms pertinent to this study included the following:

Academic achievement/achievement levels: the academic performance of each subject area and grade to provide a context for interpreting student performance in an educational setting (National Center for Educational Statistics, 2011).

Achievement gap: the result when one group of students (such as, students grouped by race/ethnicity, gender) outperforms another group and the difference in average scores for the two groups is statistically significant (National Center for Educational Statistics, 2015).

Grade point average (GPA): the average calculated grade based on a 4.0 maximum scale. GPA is calculated by dividing the total amount of grade points earned by the total amount of credit hours attempted. It is a common measure of high school students' academic achievement (National Center for Educational Statistics, 2011).

Graduation rate: an estimate of the percentage of high school students who successfully complete high school within 4 years with a regular high school diploma (National Center for Educational Statistics, 2015). For this study, the graduation rate is measured by students who enrolled in school starting in the 9th grade during the 2008-2009 school year, and finished school within 4 years of initial enrollment which would be the 2011-2012 school year. Transfer students were not included in the graduation rate.

Core subject: a subject in an educational setting that has been identified as essential for all students. Core courses are English, mathematics, science, and social studies (National Center for Educational Statistics, 2011).

High school student athlete: a high school student in grades 9-12 who participates in school-sponsored competitive sports programs as recognized by the Georgia High School Association (2014) such as interscholastic athletics, cheerleading, or literacy activities. At the time of this study, 19 sports programs were available for student participants (Georgia High School Association, 2014).

Multiple sport athlete: a high school student athlete as recognized by Georgia High School Association (2014) that participates in 2 or more competitive sports program.

Sports: any organized physical activity—such as football, basketball, baseball, gymnastics, soccer, swimming, tennis, track and field, and wrestling—that involves and/or includes training, coaching, and competition and is recognized by the Georgia High School Association (2014).

CHAPTER TWO: LITERATURE REVIEW

The review of literature begins with an overview of the conceptual framework guiding this study and is followed by the related literature. The literature encompasses several studies validating the academic benefits from sports participation, but also includes empirical evidence that participation in sports can be detrimental to academic achievement, particularly for African American students. This is followed by related literature on the positive and negative factors affecting the academic achievement of African American students, as well as the manner in which sports participation addresses these factors.

Conceptual Framework

The conceptual framework for this study is that the adolescent developmental benefits that students acquire from sports participation can lead to increased academic achievement. The conceptual framework guiding this study was formulated on two theoretical frameworks, the attribution theory and the promoting achievement in school through sports theory (PASS). The PASS theory serves at the premise guiding this research study.

Attribution Theory

Motivational theories play a significant role in students' desire to participate and succeed in athletics and school. While there are several motivational theories in existence, the attribution theory, which encompasses motivation, is relevant to this particular study. The founder of the attribution theory, Heider (1958), believed that people logically attempt to uncover connections between causes and effects. While Heider was the first to propose a theory of attribution, Weiner (1985) developed the theoretical framework. The attribution theory, which is probably the most influential contemporary theory with implications for academic motivation, incorporates behavior modification because it supports the idea that students are motivated by the outcome of being able to feel good about themselves. The attribution theory is founded on the assumption

that people want to understand and explain the events or outcomes in their lives, including what happens in academic settings (Weiner, 1980). Based on this theory, people identify reasons or attributions for explaining academic outcomes and failures. Attributions are powerful forces that help people understand the world around them, including why students do what they do, which in turn has a significant impact on the learning process (Gaier, 2015). The attribution theory is connected to athletic participation because student athletes are able to feel good if they experience success from athletic competition. In addition, many students feel good about themselves if they just simply make the team, regardless of the team's success. The sense of belonging to such a prestigious group, which in this case is an athletic team, increases the self-esteem of student athletes. High self-esteem and a positive self-image are critical components to high academic achievement. Aryana (2010) concluded that students who feel more confident about themselves are not apprehensive and they have higher academic achievement, compared to those who do not have confidence in themselves.

The relationship between self-esteem and academic achievement is regarded by many educators as a well-established fact (Arshad & Mahmood, 2015). Research has consistently shown a positive correlation between how people value themselves and the level of their academic attainments (Naderi et al., 2009). Students who feel good about themselves usually work harder in school and obtain higher grades. They believe in themselves, their abilities, and their future, and they are less likely to drop out of high school (Daniels & Leaper, 2006). Student participation in sports increases self-esteem, high self-esteem increases academic achievement, and high academic achievement eventually leads to school completion and higher graduation rates (Watt & Moore, 2001). Students' self-perceptions influence their understanding of achievement and failure, which justifies their motivation or lack of, and athletes typically have a positive self-perception.

Weiner (2005) argued that attributing failure to more stable, internal, and uncontrollable causes (innate ability) is detrimental to later motivation and achievement strivings. This type of attribution is thought to lead to a more hopeless emotional response and lowered expectations for later success (Hareli & Weiner, 2002). In contrast, however, it is seen as more beneficial for subsequent motivation to attribute failure to more unstable but controllable causes such as effort and strategy (Walters, Fan, & Daugherty, 2013). Failure in high school athletic competitions can easily be attributed to a lack of effort or an ineffective strategy. The realization of this attribution can create persistence in a commitment to improvement in future competitions. This type of attribution leaves open the potential for change and, therefore, provides for greater hopefulness and higher expectations on subsequent tasks (Walters et al., 2013). There is little doubt that positive and negative outcomes, respectively, give rise to general positive and negative emotions (Weiner, 2010).

Environment also plays a key role in the attribution theory. When students are successful, they attribute this success to their abilities, but when students fail, they attribute the failures to other environmental factors (Knesting, 2009). The role that the school environment plays on student motivation is significant. Athletic teams can create an engaging and supporting environment outside of a traditional classroom. Students' beliefs about why they may or may not be successful in various pursuits can influence the extent to which they are likely to invest effort in these pursuits, which in turn affects the level of achievement likely to be experienced (Rosevear, 2010). Students' beliefs about themselves on the athletic field may transcend to their belief about themselves in the classroom.

According to the attribution theory, when students fail, they will likely persist and possibly succeed only if they attribute failure to a lack of effort (Weiner, 2005). Luckily for student athletes, failure in competition, more often than not, is not due to lack of effort but is

usually the result of competing against a better team. However, if students do blame a lack of effort as a major reason they lost a competition, then it is possible that they can be motivated to work harder for future competitions. The work ethic that students develop from participating in sports can be used in the classroom.

Finally, the attribution theory validates the argument that if educators truly want students to persist academically, then they must help them establish a sincere belief that they are competent. Competency is encouraged through participation in sports because good coaches set realistic expectations of their athletes, and once those expectations are met, student athletes realize that they are competent (Mageau & Vallerand, 2003). The influence coaches can have on their athletes is powerful. Teachers and school psychologists should be aware of the positive influence they can have on students through positive relationships (Lessard, Fortin, Marcotte, & Egide, 2009). Student athletes know that their coaches believe in them. If there is a strong connection between teachers and students or coaches and students, and if a high expectation is in place, then students will likely persist and remain enrolled in school and eventually graduate. Dropout prevention efforts start with establishing positive relationships with students (Lessard et al., 2009).

Promoting Achievement in School through Sports Theory

Perhaps the most relevant theory to understanding the impact that participating in athletics has on African American students is the Promoting Achievement in School through Sports (PASS) theory. The PASS theory, established in 1992, was one of the first major theories based on the belief that sports participation is directly linked to educational attainment (American Sports Institute, 2015). The PASS theory is not a traditional or familiar social and behavior science theory, but it is relevant to academic achievement as it relates to sports participation. This theory is based on the successful implementation of the PASS program, which

is a yearlong elective course that encompasses the positive attitude and attributes of participating in sports, and brings them into the classroom. The PASS program was established by the American Sports Institute (ASI, 2015), a nonprofit educational organization, and it was based on the premise that athletics become a guide or study for improving students in the classroom as well as on the playing field. ASI views athletics as a solution to poor academic performance in school and the PASS program helps students see the connections between athletic and academic success (Muir, 2005). Sports offer the best possible path for challenge, engagement, learning, and achievement (American Sports Institute, 2015).

The first major study of the impact of PASS on the academic achievement of African American high school students was conducted by McClendon (1998). He examined several academic aspects related to PASS: (a) the impact of PASS on PASS students' grade point averages and attendance, (b) a comparison of PASS students' performance and attendance with that of the performance of an ethnically-matched control group, (c) a comparison between African American PASS students with African American students who did not participate in the PASS program in the control group, and (d) a comparison between PASS and non-PASS classrooms. With a sample size of 900 students, the results were mixed. There was no significant differences in the PASS students' pre and posttest grade point averages or in the attendance and tardiness data analyzed for PASS students and the control group. However, the posttest grade point averages of PASS students were significantly higher than that of the control group. In addition, African American students enrolled in the PASS program had significantly higher posttest grade point averages than African Americans who were in the control group.

The eight main objectives of the PASS program are linked to both athletic and academic experiences. Their interchangeable nature makes the transition from sports to academics seamless. In both academic and physical pursuits, students will improve their ability to (a)

concentrate over a prolonged period of time, being able to focus on the task at hand and block out distractions and negative thoughts; (b) be balanced when physically active and able to balance their time, both in school and outside of school; (c) relax and stay in control when in class, taking tests, doing homework, and participating in physical activities; (d) exert appropriate amounts of power without undue stress; (e) establish rhythm by maintaining regular schedules and activities; (f) be flexible in order to establish better relationships with teachers and classmates, be open to new ideas, and remain injury free; (g) trust and act on instinct in order to enhance test scores, creativity, decision-making, and reaction; and (h) develop an attitude of patience, perseverance, and staying positive in order to see things through to their completion (American Sports Institute, 2015). According to the PASS theory (American Sports Institute, 1996), these objectives, when carried out effectively, will consistently lead to improvement in athletic and academic performance.

Athletic Participation and Achievement

Researchers continue to investigate factors leading to the low performance in school of African American and other at-risk students because an achievement gap between minority students and White students does exist (Hill-Jackson, 2008; Smith-Evans & George, 2014). In April of 2007, the Alliance for Excellence in Education issued a report on African American students and U.S. high schools. This report highlights the achievement gap and dropout crisis suffered by African American students. On average, African American and Hispanic 12th-grade students read at approximately the same level as White eighth graders (Office of Vocational and Adult Education, 2002), and about half of poor, urban ninth graders read at only a fifth- or sixth-grade level (Neild & Balfanz, 2001). In addition, the 12th-grade reading scores of African American males are significantly lower than those for men and women across every other racial and ethnic group (U.S. Department of Education, National Center for Education Statistics, 2005).

The achievement gap is not limited to reading. African American students scored lower than all other racial and ethnic groups on both the math and verbal portions of the Scholastic Assessment Test (Hoffman et al., 2003).

The discrepancy between White and African American students is also evident when comparing the graduation rates of both racial groups. Nearly half of the nation's African American students, but only 11% of White students, attend high schools in which graduation is not the norm (Balfanz & Legters, 2004). According to the American College Testing (ACT) profile report (2012), African American female students scored significantly lower than White female students in all four subject areas of the ACT. In addition to the lower performance on college aptitude tests, in 2003 only 55% of black students graduated from high school on time with a regular diploma, compared to 78% of whites (Greene & Winters, 2006). While the on time graduation rate for has risen since then, at 66% for African American female students is and 82% of White female students (Ross et. al, 2012), African American students are still being outperformed by White students. African American students also have the highest percentage of ninth grade female students who have ever been retained in a grade (Ross et. al, 2012). A high-poverty, majority-minority high school is five times more likely to have weak promoting power (promoting 50% or fewer freshmen to senior status within 4 years) than a majority White school (Balfanz & Legters, 2004), and unfortunately more than 60% of black students attend schools where more than 50% of the school population is identified as living in poverty, compared to 18% of White students (Orfield & Lee, 2005).

In addition to that, in 31 of 49 states, school districts with the highest minority enrollments get fewer resources than school districts with the lowest number of minorities enrolled and these 31 states educate six out of every 10 minority children in America (Carey, 2004). U.S. schools are now 41% nonwhite, and the majority of the nonwhite students attend

schools that show substantial segregation (Orfield & Lee, 2005), and at 15%, African American students were the highest percentage served under the Individuals with Disabilities Education Act in the 1999–2000 school years (Hoffman, Llagas, & Snyder, 2003). Finally, in high schools where at least 75% of the students are low income, there are three times as many uncertified or out-of-field teachers teaching both English and science than in schools with wealthier populations (Wirt et al., 2004).

These statistics shed light on the achievement gap and dropout crisis suffered by African American students. According to the data, schools made up of predominately African American students are inferior to schools whose student population is predominately White. Not only do the data substantiate Fultz and Brown's (2008) assertion that urban school systems that educate large populations of African American students lack basic resources and highly trained teachers, but they further validate that urban schooling for low-income and minority youth is commonly inadequate compared to the schooling provided for middle-class whites.

Because of this vast achievement gap of the academic performance and the graduation rates of African American students, it is necessary to explore strategies that contribute to the success of African American high school students regardless of the barriers and obstacles they must overcome in order to achieve that success. The African American community places heavy emphasis on sports participation. In fact, African American students, in particular, may be steered toward sports, perhaps in lieu of academic pursuits (Harrison, Azzarito, & Burden, 2004). African American and Latino boys and girls may be encouraged to pick one domain on which to focus their energies, and may thus experience conflict between sports and educational success (Pearson, Crissey, & Riegle-Crumb, 2009). Overall, most researchers report positive outcomes from engaging in athletics, at all age levels. Sports participation contributes to academic achievement in several ways. For example, the emphasis on success and hard work in athletics

can increase students' desire to succeed in school (Dworkin, Larkin, & Hansen, 2003; Glanville, Sikkink, & Hernandez, 2008), the eligibility requirements can motivate student athletes to do well in their courses, and the mere involvement in sports may lead students to feel more attached to their schools and increase their visibility and status among other students and teachers (Broh, 2002; Feldman & Matjasko, 2005). Students who are more attached to their schools and their teachers tend to be more engaged in their classrooms, which can contribute to educational success (Crosnoe, Johnson, & Elder, 2004). These benefits can improve the educational experience of high school students, thus increasing academic achievement and helping keep them enrolled in school.

Participation in sports also has other benefits that may increase academic achievement. Overton's (2001) study examining the difference in educational performance of high school athletes versus non-athletes in North Carolina found that athletes had a higher mean GPA, better attendance rate, lower discipline referral percentage, lower dropout rate, and higher graduation rate. The results of this study are not surprising, as a wealth of research supports this notion. For many students, sports team participation is the major route by which they are physically active, and several studies suggest that participation on sports teams is also associated with better academic outcomes (Fox, Barr-Anderson, Neumark-Sztainer, & Wall, 2010). The requirement of maintaining a minimum grade point average to play on sports teams may provide an incentive for student athletes to succeed academically (Overton, 2001). Not only do the results of Overton's study suggest that the academic performance of high school athletes is better than that of non-athletes, but the findings also hold true with variables such as race and gender. Another study examining the associations between sports participation, physical activity, and academic outcomes found that regardless of whether academic success was related to the physical activity itself or to participation on sports teams, there were positive associations

between physical activity involvement and academic achievement among students (Fox et al., 2010). These findings show that there is a direct correlation between participation in athletics and academic success.

Ebie's (2006) qualitative research study designed to discover reasons for participation in two extracurricular activities, one of which was sports, found that students articulated satisfaction in sharing their athletic activity with others. This was just one of the benefits of sports participation. Student athletes also displayed a need for physical expressional release through athletic movement, positive feelings of self-worth because of participation, and a sense of self-confidence in their ability to participate successfully in athletic endeavors. Indeed, extracurricular activities are an important aspect of the high school experience for many students, and their involvement in these activities produces positive outcomes.

Finally, Troutman and Dufur (2007) examined whether or not females who participated in high school athletics are more likely to graduate than their counterparts and found that females that engage in interscholastic high school sports are more likely to complete college than those who do not. Although there is limited research on the long-term advantages of athletic participation, the research that exists (Broh, 2002; Corbett, 2007; Zaff, Moore, Papillo, & Williams, 2003) generally supports participation in athletics at all age levels.

Lumpkin and Favor (2012) compared the academic performance of high school athletes and non-athletes in Kansas and found that high school athletes earned higher grades, graduated at a higher rate, scored higher on standardized assessments, and dropped out of school less frequently. These advantages, however, are not shared by all student athletes. The results of a recent study comparing the academic achievement of African American males who did and did not participate in sports found that sports participation had no impact on academic achievement (Montgomery, 2010). Although involvement in sports is generally positive in urban schools

(DeMeulenaere, 2010), minority students, specifically African American students, do not always experience these positive outcomes resulting from athletic participation. Their academic performance is consistently lower than that of White students.

While the majority of the literature (Branch, 2003; Crosnoe, 2004; VanDuyne, 2004) supports a positive association between sports participation and achievement, there has also been research suggesting that participation in sports can have a negative impact on performance, especially for minority or at-risk students (Geisner, Grossbard, Tollison, & Larimer, 2012; Humphrey, Yow, & Bowden, 2000; Umbach, Palmer, Kuh, & Hannah, 2006). High school students involved in athletics may face additional stressors and engage in more problematic behaviors than non-athletes, such as drinking, dieting, and gambling, especially as they near the end of their high school experience (Geisner et al., 2012). Students involved in athletics are required to balance both athletic and academic demands, and may therefore be at risk for problems associated with a lack of sleep, fatigue, anxiety, and other negative health habits (Hudd et al., 2000; Humphrey et al., 2000). Research indicates a complex relationship between athletic involvement and health-related risk behaviors, both at the high school and college levels (Geisner et al., 2012).

In addition to health-related risk behaviors, for years, it was assumed that top-level sports at school age might be negatively linked with academic achievement (Umbach et al., 2006). In order for students to become experts in their sport, the most progress should be made in middle and high school. Consequently, talented athletes are repeatedly confronted with the stress resulting from the demands of both domains (Jonker, Elferink-Gemser, & Visscher, 2009).

Since there is a clear emphasis placed on sports for African American students (Harrison, Azzarito, & Burden, 2004), this research sought to identify the educational benefits sports participation provides. While sports have typically been a male-dominated institution,

during the 2011-2012 high school year, approximately 3.2 million girls participated in school-sponsored sports, representing roughly 42% of high school athletes—the highest rate of athletic participation ever (National Federation of State High School Associations, 2013). Federal mandates continue to pressure schools to improve the academic achievement of minority students. The purpose of this study was to explore the relationship between participation in school-sponsored athletics and the benefits they provide in promoting African American high school girls' educational development. The researcher also hoped to identify relevant factors that influence commitment to participation in high school athletics and to delineate the impact it has on academic achievement.

The relationship between athletics and academic achievement is an area that has been extensively researched (Bowen & Levin, 2003; Comeaux, 2005; Gaston-Gayles & Hu, 2009; Gaston-Gayles, 2005; Hartmann, 2008). Despite this apparent abundance of research, the literature indicates that the link between academic achievement and athletics remains somewhat ambiguous and highly contested (Georgakis, Evans & Warwick, 2015). Proponents of high school athletic programs believe these activities contribute to the overall education of students by enhancing their academic performance through academic requirements in order to maintain athletic eligibility (Lumpkin & Favor, 2012). The National Federation of State High School Associations (2008) emphasizes that students who participate in high school sports make higher grades. Bukowski (2010) found that 48 state athletic associations recommended some form of academic eligibility requirements for student participation in high school sports, with requirements ranging from being enrolled in a minimum number of courses to a combination of a minimum number of courses, passing all courses, a minimum grade point average, and an attendance policy. The three most commonly used academic eligibility standards include pass-to-play, a minimum grade point average, and a requirement that allows only a specified number

of failing grades (Callari, 2002). But academic eligibility requirements alone are not enough to conclude that student athletes perform better academically in school. Hartman (2008) acknowledges the possibility that sports participation may have no causal impact on educational attainment, or that athletics may have negative impacts on academic performance.

Lumpkin and Favor's (2012) examination of the academic performance of Kansas' high school athletes found that athletes in Kansas reported higher grades, graduation rates, state assessment scores, and ACT scores, and a lower numbers of dropouts, than did non-athletes. Lipscomb (2007) quantified the relationship between athletic participation and performance on standardized tests and found that athletic participation is associated with a 2 percent increase in math and science test scores. Overton's (2001) study of African American high school athletes in North Carolina found that African American athletes reported higher graduation rates than non-athletes, which was also supported by Lumpkin and Favors' (2012) study. Claims that athletic participation is inherently pro-social and is an activity that instills virtue, character, and discipline may provide a theoretical explanation for the positive connection (Hartman, 2008). An obvious possible reason for causation is that students with little interest in learning must achieve a certain grade point average in many cases to play sports so that participation, no matter how convoluted, may be the impetus for greater study (Couch, Lewis-Adler, & Burton, 2011). Furthermore, student-athletes who have disciplinary problems or who perform poorly in the classroom are at risk of being dropped from the team (Miller, 2005). But despite the plethora of research indicating that participation in school sponsored sports has a positive impact on academic achievement and graduation rates, there is a wealth of research that suggests otherwise.

Coleman's (1961) work, *The Adolescent Study*, triggered a debate over the relationship between participation in sports and academic achievement. This debate continues today. Coleman (1961) concluded that a negative correlation exists, primarily due to the amount of time

that participation in sports takes away from time that could be devoted to studying. This can be especially true for student athletes participating in multiple or year-round sports. Even with the plethora of literature indicating that participation in athletics has a positive influence on academic achievement, participation in sports could limit study time and energy, or an over-emphasis on sports might distract attention and concern from the core academic curriculum and educational mission of schools (Hartman, 2008). Student athletes who struggle with the improper management of time devoted to both school and sports can frequently lead to athlete burnout: a part of a spectrum of conditions that includes overreaching and overtraining, and it occurs as a result of chronic stress that causes a young athlete to cease participation in a previously enjoyable activity (DiFiori et al., 2014). Burnout begins when the perceived stress-induced cost of participating in a sport outweighs the rewards of participation (Watts, 2002) and can be extremely dangerous, particularly because student athletes do not realize they are experiencing it. In children, there appears to be more of a psychological component related to burnout and attrition with adult-supervised activities (DiFiori et al., 2014).

Coleman's (1961) reasoning that time and energy devoted to sports was time and energy not devoted to academics, was not the only argument against athletic participation; other negative behaviors linked to sports participation support the notion that athletic participation has a deleterious influence on education. A significant negative association between athletics and education is an increase in alcohol use (Yusko, Buckman, White, & Pandina, 2008). A study by Mays and Thompson (2009) concluded that adolescent male sports participants were more likely to report heavy drinking, while a study by Wichstrom and Wichstrom (2009) found that participation in competitive sports might increase the likelihood of alcohol intoxication in late adolescence. A data-based study on alcohol and drug use of high school and college athletes conducted by Lisha and Hussman (2010) found that an increase in alcohol consumption might be

the result of stress-related drinking. Traditionally, athletic participation is seen as a way to relieve or cope with stress, but this research suggests that alcohol might be introduced as a coping mechanism for the sport-related anxiety that athletes experience instead. Surprisingly, the significant increase was only found in female athletes. A study comparing the health behaviors of 653 graduating high school athletes to non-athletes also found that students who participated in sports were more likely to engage in alcohol risk behaviors (Geisner et al., 2012). The study replicated previous studies demonstrating that students entering college who have participated in athletic activities in high school are more likely to have higher peak drinking episodes and may be more inclined to engage in other risk behaviors, such as gambling (Geisner et al., 2012). Regardless of specific motivations, both male and female athletes at the adolescent level tend to consume alcohol more frequently than their peers (Denham, 2011) and alcohol use is a quality indicator of lack of academic achievement and success (Barry, Chaney & Chaney, 2011).

Finally, the issue of students having unrealistic professional expectations has become particularly contentious at the high school sports level (Woolf & Swain, 2014). A study conducted by Eitle and Eitle (2002) on factors that predict participation in different sports found that cultural disadvantage contributes to an increased interest in and perhaps dependence on basketball and football as a means of social capital. Smith's (2014) study noted that between 2007 and 2010, black males constituted 57.1% of football players and 64.3% of basketball players, but just 2.8 percent of full-time, degree-seeking undergraduates; black men are significantly underrepresented in the scholastic side of the student athlete experience. Solely focusing on the prospect of becoming a professional athlete only further inhibits academic growth and achievement.

The relationship between athletic involvement and academic success is not a direct causal one and can vary based on the type of sport, level of participation, background of the student-athletes involved, school characteristics, and relationship between the athletic program and the academic curriculum (Hartman, 2008). It even varies at the collegiate level, as research studies conducted by NCAA (2005) indicates that student athletes graduate from college at a higher graduation rate than do students from the general population of many American universities. A considerable number of research investigations have been conducted on the demographics of student athletes (Reynolds, Fisher, & Cavil, 2012) and how it effects achievement and other researchers (e.g., Stone, Harrison, & Mottley, 2012; Harrison, 2008; Comeaux, 2010; Martin & Harris, 2006) have provided critical insight along these lines for Black athletes in college. But while some researchers (e.g., Fredricks & Eccles, 2005) have suggested that students participating in extra-curricular activities are more academically-oriented than those who do not, and are high achievers (Cox, 2007), others (e.g., Harris, 2012) have posited that such effects can vary upon closer examination across groups. For example, while sports have generally been considered to have a positive effect on educational outcomes of students (Eide & Ronan, 2001), such effects slightly diminish for Black male student-athletes as their participation status increases from high school junior varsity to varsity (Harris, 2012). NCAA (2005) research indicates that both African American male (42%) and female (47%) student athletes are graduating at a lower rate than other ethnicities classified in Division I NCAA athletic programs. While participation in school-based extracurricular activities has been found to be associated with increased educational achievement and attainment, reduced problem behavior, improved attitudes toward educational and occupational goals, more positive psychosocial adjustment, and a decreased likelihood of dropping out (Feldman & Matjasko, 2005; Mahoney, Cairns, & Farmer, 2003); other studies have revealed that sports participation adversely impacts the

educational and adolescent social development of racial and ethnic minority students, that involvement in school-based extracurricular activity differs among racial and ethnic groups (Peguerro, 2010). There is a need for continued research and writing on this topic (Hartman, 2008).

Positive Factors Affecting Academic Achievement

African American academic achievement and graduation rates continue to be an important educational issue (Brown, Linver, Edwards & DeGennaro, 2009). The National Center for Educational Statistics has reported academic success disparities in African American adolescents when compared to White adolescents over the last few decades (Planty et al. 2008). However, in the past 30 years, the academic achievement gap between African American and European American students has been reduced (Kao & Thompson, 2003). There are several factors that have been reported to have a positive impact on the academic achievement of African American students, one of which, is parental involvement.

The benefits of parental involvement are well documented and therefore, a high level of parental involvement can benefit African American children (Jeynes, 2005). Parenting behaviors and family socialization are among the most cited factors thought to be related to how African American youth perform in school (Brown et al. 2009). Parental involvement is typically associated with a more positive school experience and an increased likelihood of academic success. Considering only academic outcomes and behaviors, empirical evidence suggests that parental involvement improves grades, increases standardized test scores, and reduces the likelihood of students dropping out of school (Broh, 2002; Carpenter & Ramirez, 2007; Lee, Kushner, & Cho, 2007; Yan & Lin, 2005). However, the majority of studies on parental involvement have generally focused on the general population rather than on urban African

American students (Jeynes, 2007). In fact, Howard and Reynolds (2008) claimed that most literature on parental involvement fails to consider race and class.

Federal and state policies in the United States have elevated parental involvement in schools to a national priority partly because of the large number of failing schools and the increased achievement gap between White and African American students (Hill-Jackson, 2008). In a meta-analysis of parental involvement and academic achievement, parental involvement was found to affect the academic achievement of minority students regardless of outcome measurement (e.g., GPA and standardized test scores), and these effects held across all of the racial groups under study (Jeynes, 2003). Students whose parents are involved in their education typically have higher achievement and lower absenteeism (Cole-Henderson, 2000; Jeynes, 2005). Parental involvement includes not only direct involvement in schools, such as volunteering in classrooms and attending school parent-teacher conferences, but also indirect or hidden behaviors, such as discussing school and family issues and conveying educational expectancies (Epstein & Sanders, 2002).

Athletes, particularly those who stand out, tend to have more involved parents. The harsh reality of the values that many parents share suggests that athletic accomplishments outweigh academic pursuits. Parents may become more involved in athletics than in education, but any type of parental involvement can still be beneficial. Hayes's (2009) study on the parental involvement in school endeavors of 145 parents of urban African American high school students from southwestern and southern U.S. cities indicated that home-based involvement was the only significant predictor of academic achievement. The potential of sports to bring parents, and in particular African American parents, to schools cannot be over-emphasized (O'Bryan et al., 2006). In Hayes's study, students who performed better academically and who had better attendance had parents that reported high levels of involvement at home. The initial involvement

from parents of student athletes may be school-based, but it can often lead to home-based involvement through discussions and interactions even if they are triggered by athletics. Student athletes may experience increased parental involvement compared to non-athletes, even if it is athletically motivated. The findings of a study exploring the relationship between African American student participation in extracurricular activities and parental involvement suggest that student participation in school-based activities is indeed associated with high involvement of African American parents regarding educational matters (O'Bryan et al., 2006).

School factors are also influential in the academic success of African American high school students. A critical need exists for research on high school dropout that goes beyond individual student characteristics to include the influence of school factors on students' educational decisions (Knesting, 2009). Students who feel more attached or embedded in their school exert more effort (Johnson, Crosnoe, & Elder, 2001); student effort as it relates to increased school involvement, school attachment, and school commitment should positively affect academic achievement (Stewart, 2008). A research study on individual and school structural effects on African American high school students' academic achievement, conducted by Stewart (2008), found that individual-level predictors, such as student effort, parent-child discussion, and associations with positive peers, play a substantial role in increasing student achievement.

It is important to examine how children's behaviors, thoughts, and feelings aid in their school investment and motivation and subsequently promote achievement (Appleton, Christenson, & Furlong, 2008). School engagement consists of different thoughts and feelings that affect the effort a person exerts on a task (Darensbourg & Blake, 2013). Participating in high school sports provides students opportunities to benefit from school factors including school engagement that lead to academic achievement. Behavioral engagement in school has been

shown to be consistently predictive of child achievement (Fredricks et al., 2004) and is related to achievement scores across all levels. The opportunity to play a high school sport and be a part of an athletic team is a school factor made available to all students that demonstrates school commitment and engagement and can lead to an increase in high school completion. Those who participate in extracurricular activities develop increased positive feelings toward school (Johnson et al., 2001). Positive associations with peers are immediately established by simply participating in sports through the development of relationships with teammates. Teammates spend time daily training, preparing for competition, and learning to build upon the strengths of each other; it is only natural for bonds and relationships to be established. Student socialization and motivation increase just by the interaction with peers because the need to belong is fulfilled. Peer groups have been cited as important to adolescent development (Nichols & White, 2001). The results of Stewart's (2008) study also suggest that school cohesion felt by students, teachers, and administrators is important to successful student outcomes. Athletic competition creates cohesion among all of these groups, and athletes are the reason they come together. Athletics also provide schools with an opportunity to monitor closely not only an athlete's academic progress but also, more importantly, his or her exposure and resilience to various risk factors in the social environment (Hawkins & Mulkey, 2005).

Another factor contributing to the academic achievement of African American students is being involved in a mentoring program or having a mentor. Mentoring programs (Santos & Reigados, 2002) and involvement with faculty (Komarraju, Musulkin, & Bhattacharya, 2010) are two methods that can decrease the achievement gap between African American and White students. These practices may be particularly important for ethnic minorities who may not have people in their family or social network that can support their academic endeavors (Alvarez, Blume, Cervantes & Thomas, 2009). In the athletic realm, coaches are unofficial mentors for

student athletes. When examining the relationship between high school athletes and academic achievement, it is essential to consider the role of the coaches as well. Students can have positive or negative experiences from participating in athletics, and the coach has the greatest influence on this experience (Trottie & Robitaille, 2014). In fact, it is recognized that the coach is a key agent for socialization during adolescence (Côté & Hay, 2002). Many researchers have further argued that the coach is the most significant shaper of values and life skills for adolescent athletes (Danish, Fazio, Nellen, & Owens, 2002; McCallister, Blinde, & Weiss, 2000).

Organized competitive sports clearly is an integral part of the educational system, and coaches assume the role of teacher in this setting (Gilbert, Gilbert, Loney, Wahl, & Michel, 2006). Many school districts hire teachers as athletic coaches. Teachers often have the athletic ability and awareness to coach a sport and the experience working with students to maximize their coaching responsibilities. An analysis by Shepard et al. (2012) of an intervention program in a rural Washington high school that targeted at-risk students who were previously failing all of their classes and engaging in dangerous activities identified meaningful relationships with adults as arguably the most important factor in promoting academic success. These relationships are often indirectly formed through the bond that coaches and athletes share. The fact that coaches are often teachers can have an influence on student athletes both inside and outside of the classroom. The interactions that take place between students and teachers are more central to student success than any method of teaching literacy, science, or math (Cummins, 2001). Students in Shepard et al.'s study consistently discussed the impact of having someone in their lives who believed in them as individuals, accepting them despite their good or bad choices. When positive relationships are established between teachers and students, these relationships frequently can transcend the economic and social disadvantages that afflict communities and schools alike in inner cities and rural areas (Cummins, 2001). In addition to establishing meaningful

relationships, creating a vision for the future and encouraging meaningful participation from at-risk students can ultimately lead to increased academic performance.

The close relationship that commonly exists between coaches (as educators) and athletes provides the athlete a rationale and resources for sustained academic effort even in the face of difficulties (Hawkins & Mulkey, 2005). Coaches can be equivalent to the teacher in a classroom setting. They provide support, guidance, and encouragement, all of which is necessary for a student to be successful in school. A study conducted on at-risk students who graduated from high school found that support was the biggest factor contributing to their success (Lessard et al., 2009). Other researchers (Cummins, 2001; Scales & Letfert, 2004) have found that a strong relationship exists between positive academic outcomes and academic support from family and teachers. Unfortunately, not all students receive support from teachers and parents, but most athletes do tend to receive support from their coaches. In one study, the resilient students reported knowing where and how to get help when it was needed, and when they could not count on their parents, resilient students turned to significant adults—like their coaches—and got the help they needed (Lessard et al., 2009). There are typically strong relationships established between coaches and athletes, especially if students have participated in a sport with the same coach for several years. More studies that specifically examine academic resilience in at-risk students, which often includes athletes, should be conducted. Learning more about what keeps these students from dropping out could potentially lead to refined prevention efforts if researchers can identify the variables that differentiate resilient students from those who drop out and target these variables in prevention programs (Lessard et al., 2009).

Both mentoring and involvement with faculty are likely to impact students' self-efficacy (DeFreitas & Bravo, 2012). Self-efficacy beliefs refer to one's confidence in engaging in specific activities that contribute toward achieving one's goals (Bandura, 1991). For students to

possess the confidence to work toward achieving goals, they must first identify an attainable goal. This confidence is what makes high school sports significant. Many high school student athletes have an ultimate goal of becoming a collegiate athlete. Not only is this goal attainable, but it often occurs for students who possess talent and who are dedicated to their sport. If the end goal of high school student athletes is to become a collegiate athlete, then self-efficacy beliefs suggest that these students already possess the confidence to do so. Although the academic achievement may not result from the desire to do well in higher education, the mere acceptance into college, which must occur for high school student athletes to transition into collegiate athletes, requires a minimum academic achievement in high school. Self-efficacy beliefs could be used as a predictor of a change in academic planning behavior (Erlich & Russ-Eft, 2011). Even if students are only changing their academic planning behavior so they can maintain eligibility to play high school sports or become a collegiate athlete, they are nonetheless improving their academic behaviors. Furthermore, faculty members are likely to encourage students with whom they interact, and because faculty members are usually perceived as credible and knowledgeable, their encouragement and faith in students' academic abilities will be believed and will result in an increase in students' self-efficacy.

A considerable amount of research has focused on traditional measures of cognitive ability such as student performance of standardized tests such as the Scholastic Aptitude Test (SAT) as an indicator for academic achievement (Fleming, 2002). However, it is important to consider non-cognitive factors that may influence the academic achievement of African American students. One such non-cognitive factor is a positive self-concept, which is characterized by such terms as strength of character, motivation, independence, confidence, and a strong feeling of self (Nasim, Roberts, Harell, & Young, 2005).

Arguably, the most powerful psychological correlate of academic outcomes may be the attitudes and feelings that an individual has about her or his academic abilities, also known as academic self-concept (Cokley & Chapman, 2008). Academic self-concept has been found to be a remarkably consistent correlate of academic achievement (Awad, 2007; Cokley, 2000; Cokley, 2002). As previously stated, attributes of a positive self-concept include a strength of character and motivation, both of which are developed through participation in sports. The findings of Trudel and Camire's (2010) empirical research study on character development through participation in sports suggest that participation in high school athletics helps develop good character. Twenty high school student athletes participated in the study, and data were collected through interviews. After data were transcribed, coded, and managed, the responses were categorized according to the social and moral values used in Rudd's (2005) framework of character development. Findings show that the development of social character results from participating in athletic teams and athletic competitions. Because of the findings, researchers concluded that coaches, administrators, and other school personnel must actively promote character development in athletic programs so that moral development, in addition to social character, derives from sports participation.

Those who wish to promote the moral development of athletes should work with specific values, define the values for the athletes, and make sure that athletes understand the meaning of the values (Trudel & Camire, 2010). Other studies also indicate positive student development resulting from character education programs or schools that provide a desirable character education environment (Harrington, Giles, Hoyle, Feeney, & Yungbluth, 2001; Leming, 2000; Schultz, Barr, & Selman, 2001; Williams, Yanchar, Jensen, & Lewis, 2003). The growth of character education programs in the United States has coincided with the rise in high-stakes testing of student achievement and positive coefficients indicate that schools with character

education programs or that directly addressed student character had higher achievement than the non-character education schools (Skaggs & Bodenhorn, 2006).

The learned life skills resulting from participation in sports also contribute to promoting good character. Holt, Tink, Mandigo, and Fox's (2008) study examining how life skills were learned through involvement in a high school soccer team found that three learned life skills, initiative, respect, and teamwork/leadership, were most prevalent in the student athletes. This study closely examined the relationships and interactions of athletes and coaches. Results also showed that the coach's philosophy involved building relationships and involving student athletes in decision-making (Holt et. al, 2008).

Life skills are important in healthy development for the future. Although life skills can be gained and learned through a plethora of interactions and environments, the school environment is a heavy contributor to their development. Participation in sports further emphasizes the growth of life skills because it creates a context for teaching life skills and athletic skills simultaneously. Supportive evidence from students of U.S. youth has revealed associations between high school sports participation and high academic performance, greater likelihood of attending college, and greater autonomy and satisfaction in one's first job (Barber et al., 2001). This is why high school athletics is so critical in character development. Certainly, leadership skills are learned even if students do not hold a leadership position, initiative to improve one's athletic skills is often taken outside of scheduled training sessions, and learning to respect one's self and others is inevitable when playing sports. Finally, teamwork and cooperation is the essence of success in athletic competitions. These skills are all necessary elements of good character.

Negative Factors Affecting Academic Achievement

Poverty is a key indicator of low academic achievement. According to the U.S. Census Bureau (2010), the four million African American children living in poverty in 2009 represented an increase of more than 150,000 since 2008 and almost half a million since 2000. As the number of poor urban African American students in the United States continues to rise, there is an urgent need for insight into identifying factors for fostering their academic success despite the challenges they face (Williams & Portman, 2014). Because African American students are more likely to live in poverty (U.S. Census Bureau, 2007), some suggest that the gap is attributable exclusively to low socioeconomic status (Magnuson, Rosenbaum, & Waldfogel, 2008). Living in poverty makes it difficult to build self-esteem and a positive self-image (Davidson, 2008). Frost and Hoggett (2008) argue that social and structural issues become replaced by the internalization by deprived individuals of personal critique and crisis as an explanation for their circumstances. As a result, individuals view themselves as primarily responsible for their own position and circumstance (Dolan, 2007). Stressors associated with living in poverty, such as increased crime, persistent joblessness, limited health care and inadequate housing can affect children's overall mental and physical health, and can produce high levels of anxiety, hypertension, fear, and depression (Shipler, 2004). Behavioral problems are yet another distressing effect of poverty (Hughes, Stenhjem & Newkirk, 2007). Substance abuse, mental health problems, antisocial behavior, and juvenile justice involvement far exceed rates characteristic of youth from families not experiencing poverty (Duncan, Duncan, & Strycker, 2002; Eamon, 2001).

While participation in athletics cannot solve the issue of poverty in the United States, it can address some of the mental health issues that children living in poverty often experience. Self-esteem, the evaluation of how one feels about one's self, is believed to be positively

impacted by sports participation (Taylor & Turek, 2009). This positive impact is further validated by previous research supporting that an increase in self-esteem is a direct result of athletic participation (Triggemann, 2001). A study by Miller et al. (2003) conducted on the impact of sports participation in self-esteem and substance abuse among urban and rural African American adolescent girls found that participation in sports enhanced school adjustment and self-esteem. Researchers believe that the emphasis on success and hard work in athletics may increase students' desire to do well in school (Dworkin et al., 2003; Glanville et al., 2008). There is also evidence that participation in high school sports is associated with higher levels of self-knowledge, emotional regulation, problem-solving, goal attainment, teamwork, and skill development (Dworkin et al., 2003). Finally, the mere involvement in athletics and other school-sponsored extracurricular activities provides students with a sense of belonging (Broh, 2002; Feldman & Matjasko, 2005) and can increase their self-confidence and well-being (Daniels & Leaper, 2006; Tracy & Erkut, 2001), which can lead to increased academic achievement.

The mental health benefits resulting from participation in sports are substantial in combatting the effects of poverty, but the physical health benefits may be equally significant. Participation in high school sports affects health risk behaviors, which consequently affect performance in school. Numerous studies (Taliaferro et al., 2010; Franklin, Denyer, Steinbeck, Caterson, & Hill, 2006) assessing the relationship between sports participation and health risk behaviors, including dietary habits, weight loss, sexual activity, interpersonal violence, and substance use, found that participation in organized sports benefits most high school students. Sports participation can also help students manage their weight. The prevalence of overweight children tripled between 1980 and 2002, and 17% of those aged 2 to 19 now meet the criteria for being overweight (Taliaferro et al., 2010). Approximately 9 million children over the age of 6 are obese, and over the past 25 years, the percentage of overweight girls has more than doubled,

with low-income and minority girls at highest risk (Noakes, 2011). Obesity in adolescents leads to increased feelings of stigmatization, which leads to students becoming the target of teasing and results in a decrease in self-esteem (Franklin et al., 2006). Other effects include an increased risk of becoming overweight adults; an increased chance of diabetes, hypertension, cancer, and other diseases; and an increased chance of depression. In addition to providing advantages regarding weight control, youth sports participation also relates to increased social competence, problem-solving skills, self-esteem and self-efficacy, locus of control, academic achievement, and school attendance, as well as reduced juvenile arrests, teen births, and school dropout (Taliaferro et al., 2010). These advantages are critical and plentiful and should set the foundation as reasons why high school students should be encouraged to participate in athletic programs. There are health benefits and educational academic benefits to sports participation. Identifying a factor, such as sports participation, that correlates with reduced involvement in multiple health risk behaviors among adolescents represents a significant contribution to health policy and practice, particularly given the limited resources available to promote positive health behaviors (Taliaferro et al., 2010). Students who are physically, mentally, and emotionally healthy, and who exhibit positive health behaviors, are most successful in school.

Another factor that contributes to low achievement is the high school dropout rate. A commonly used indicator for measuring academic achievement is the rate of high school completion. At least one student in five drops out of school, and nearly 5 million aged 18-24 years lack a high school diploma (Princiotta & Reyna, 2009). Many students who drop out of high school never go back to school to earn a high school diploma (Swanson, 2003). While there are many factors contributing to the high dropout rate, ultimately, educational stakeholders need to recognize the dangers that dropping out of school presents. Dropping out of school is dangerous not only to those students quitting school but also those remaining in school.

Annually, dropouts cost the United States more than 300 billion in lost wages and increased public-sector expenses (Princiotta & Reyna, 2009). Low achievement is a precursor to high school dropout, and unfortunately, African American students are dropping out of high school at a greater rate than White or Asian students. Decreasing dropout rates not only expands opportunities by paving the way for success in college, career, and life but also engenders stronger communities, enhanced civic life, and an improved workforce (Princiotta & Reyna, 2009). In 2003, only 55% of black students graduated from high school on time with a regular diploma (Greene & Winters, 2006).

Unfortunately African American students are dropping out of school at an alarming rate. While this is evidently a contributing factor to the lower achievement of African American students, prior research indicates attendance is the key to dropout prevention (Nichols, 2003), and students who remain in school can eventually meet graduation requirements. Participation in athletics addresses this problem because high school athletes have better attendance than non-athletes and are typically more motivated to come to school (O'Bryan, Braddock, & Dawkins, 2006). Athletes cannot participate in the day's athletic competition if they are absent from school or if they get into trouble. This is a key reason why student athletes make a deliberate effort to maintain good attendance. Student attendance and student motivation are key factors to discourage students from dropping out of high school. In addition, O'Bryan, Braddock, and Dawkins's (2006) study on the relationship between African American student participation in extracurricular activities and parental involvement found that when all extracurricular activities were examined simultaneously, athletic participation was the only activity that was significantly related to the reduction of a student's likelihood of dropping out.

In addition to the dropout rate as an indicator of low achievement, high stakes testing also negatively effects graduation rates. Standardized testing has played a prominent role in American

education for over a century (Giordano, 2005). The authors of No Child Left Behind Act (NCLB, 2001) explicitly outlined a multifaceted approach to school reform, but became equated with one ultimate objective: producing high test scores (Thompson & Allen, 2012). Under the federal No Child Left Behind Act of 2001, standardized test scores are the indicator used to hold schools and school districts accountable for student achievement (Nichols & Glass, 2006). A major consequence has been the current high-stakes testing movement that has made standardized test scores the main criteria by which student knowledge, teacher efficacy, and school quality are assessed (Thompson & Allen, 2012). Testing is used for accountability purposes in an effort to increase student achievement. Nichols' & Glass' (2006) study on the impact of high stakes testing pressure on student achievement found that states with greater proportions of minority students implement accountability systems that exert greater pressure and that any problems associated with high-stakes testing will disproportionately affect America's minority students; the study results also suggest that increases in testing pressure are related to larger numbers of students being held back or dropping out of school.

One of the most consistent concerns associated with high school graduation exams is that failing the test, or even fear of failing the test would convince some students to drop out of high school and not graduate (Marchant & Paulson, 2005). For years, there have been both academic and legal debates over high school graduation tests. Not only are they high-stakes exams, but several studies have shown that graduation exams actually contribute to the high school dropout rate (Marchant & Paulson, 2005; Schmidt, 2000). Student promotion, retention, and placement are all based on high-stakes testing (Affleback, 2005). Proponents of graduation tests believe that the tests are fair and accurately measure basic proficiency, but others see these tests as a means of encouraging students to drop out. In a longitudinal qualitative investigation of states before and after implementing graduation exams, Ambrien and Berliner (2002) found that 62%

of the states posted increased dropout rates, and 67% of the states showed a decrease in graduation rates (Marchant & Paulson, 2005). Marchant and Paulson's (2005) research proved that graduation tests are directly correlated to student dropout rates, and those most affected are poor minorities. Natriello and Pallas (2001) found that minority students were also more likely than White students to fail graduation examinations in Texas, New York, and Minnesota. Colleges are even starting to notice the decline in applicants due to states' implementation of graduation tests, reporting that their pools of applicants, especially minority applicants, are being reduced by high school graduation exam requirements (Schmidt, 2000). Another study examining the effect of high school graduation exams on states' graduation rates and SAT scores found similar results. After controlling for students' demographic characteristics which included race, family education, income, GPA and class rank, regression analyses revealed that states requiring graduation exams had lower graduation rates and lower SAT scores (Lessard, Fortin, Marcotte, & Egede, 2009).

Researchers (Marchant & Paulson, 2005; Ambrien & Berliner, 2002) suggests that an association exists between high stakes testing and dropping out of high school, but regardless of the position on high-stakes testing, it will likely remain a requirement for earning a high school diploma in many states. However, student participation in athletics inadvertently addresses this issue. Participation in extracurricular activities is the driving force behind some students' interest in attending school and remaining in school despite academic challenges (Burnett, 2000). Furthermore, two commonly used academic eligibility standards for sports participation include a minimum grade point average, and a requirement that allows only a specified number of failing grades (Callari, 2002). These standards have resulted in some students having higher grades, higher attendance rates, fewer disciplinary problems, and lower dropout rates (National Federation of State High School Associations, 2008).

Summary

Sports is one of the most prominent forms of physical activity for adolescents in the United States, as demonstrated by the 7.71 million adolescents involved in high school athletics (National Federation of State High School Associations, 2013). Several studies have shown that participating in high school sports has many educational benefits (Branch, 2003; McCarthy, 2000; VanDuyne, 2004). The most frequently noted benefit is student athletes having higher educational attainment (Barber et al., 2001). Furthermore, athletes have better academic performance in high school, such as improved grades and coursework selection (Broh, 2002; Crosnoe, 2002; Marsh & Kleitman, 2003b). However, a gap in literature exists on the impact athletic participation has on the academic achievement of females. There has been a tendency in the developmental literature to focus on adolescence as a period of risk and negative outcomes rather than considering aspects of positive development (Fredricks et al., 2002), yet participation in high school athletics appears to be one aspect of positive development in adolescents. However, the impact of athletic participation on female students differs from that of males. Too often, the mere mention of a high school athlete is a reference to only male athletes, particularly those in dominant and popular sports such as football, basketball, and track. Yet, female athletes are equally important to the success of a school's athletic program, and their participation in sports has the capacity to improve their individual academic performance as well. Girls engaged in sports have been shown to be less likely to get pregnant, to engage in risky behavior, or to be absent from class (Jones & Jones, 2002), all of which have negative impacts on academic performance. However, although researchers contend that sports can have a positive influence on adolescent development, some maintain that it would be a mistake to believe that participation in sports automatically generates positive benefits (Stean & Garcia Bengoechea, 2001). In fact, some research suggests participation in sports has a negative effect on academic

performance. Students involved in athletics are required to balance both athletic and academic demands and may therefore be at risk for problems associated with a lack of sleep, fatigue, anxiety, and other negative health habits (Humphrey et al., 2000). Participation in sports could also limit study time and energy, or an overemphasis on sports might distract attention and concern from the core academic curriculum and educational mission of schools (Hartman, 2008). Finally for millions of black youth who aspire to become a professional athlete, education matters only to the extent that maintaining eligibility to participate in sports in elementary and secondary schools through college is necessary in order to fulfill externally imposed requirements (Dawkins et al., 2009). Devoting efforts and energies to be fully engaged in the learning process is secondary to development as an athlete (Dawkins et al., 2009). Many athletes unrealistically believe that lucrative sports contracts make time devoted to educational pursuits unnecessary (Couch et al., 2001). Students become so focused on becoming professional athletes that they fail to concentrate on academics and see little value in education.

The focus of this research, however, goes beyond the overall effect that participation in athletics has on female high school athletes and specifically investigates its effect on the African American female high school athlete. Although most research supports the idea that participation in athletics enhances academic performance, African American students do not always experience the positive academic outcomes that other populations share. The comparison of the effects of athletic investment on academic persistence and resilience for African American males and females is a first step in distinguishing the sports participation and effect patterns of young African American students in general and, more specifically, delineating some of the academic consequences of an aspect of school life that has been virtually ignored among young African American females (Hawkins & Mulkey, 2005). Researchers have generally found that the positive effects of sports on academic outcomes are strongest for White adolescents (Eitle,

2005); therefore, it is necessary to examine the impact that participation in athletics has on African American female student athletes who have achieved academic success. The knowledge gained from their stories regarding their academic resilience, which refers to the ability to overcome challenges hindering academic achievement, may contribute to African American male and female athletes finding a balance between athletics and academics, and may ultimately lead to higher academic achievement among all African American students (Hawkins & Mulkey, 2005).

This study sought to address this gap in literature and contribute to future, current, and past research on the role of athletics in education. The literature on sports in the educational environment dates back to the 1970s, yet little research—with a few exceptions (Miller, Barnes, Farrell, Sabo, & Melnick, 2002; Motl, Berger, & Leuschen, 2000; Tracy & Erkut, 2001)—has been done on the impact of sports participation on African American females in this regard (Hawkins & Mulkey, 2005).

Overall, research supports the idea that a correlation exists between athletic participation and academic success in school (Branch, 2003; Lumpkin & Favor, 2012; VanDuyne, 2004). The quality of education in America today is often scrutinized, and both policy makers and educators are constantly searching for solutions to this increasing problem. Some policies that have been suggested for improving academic achievement include increased funding, lowering the pupil-teacher ratio, offering better teacher training and merit pay, and encouraging competition among schools (Couch, Lewis-Adler, & Burton, 2011). While these factors may improve academic achievement, it is definitely important to consider the effect that extracurricular activities, particularly athletics, have on academic achievement.

The literature on the relationship between athletics and academic achievement varies, though it generally suggests a positive relationship. Rules about no pass–no play can further

motivate student athletes to do well in their courses (Pearson et al., 2009). The literature also shows that students who participate in sports benefit even after high school. High school athletes enjoy both positive educational outcomes and positive occupational outcomes (Barber et al., 2001). Ewing's (2007) research shows that the future earnings of former high school athletes are higher than those of non-athletes. Not only do athletes have higher wages, but they also enjoy larger fringe benefits. Finally, adolescents that opt to participate in sports may already possess characteristics and resources that contribute to academic success (Eitle, 2005; Feldman & Matjasko, 2005; Videon, 2002). This assertion suggests that higher-achieving students are more likely to participate in athletics or other extracurricular activities. It is not that athletic participation produces better students, but instead, better students are involved in athletics (Couch et al., 2011). Students who make good grades tend to be more invested in school and desire to get involved in athletics and in other extracurricular school-sponsored activities.

Taken together, the literature suggests that a relationship does exist between participation in high school athletics and increased academic achievement, although there are some negative associations between the two, specifically when examining its impact on minority students. Nonetheless, academic achievement and success in high school leads to graduation, which for many can be one of life's greatest accomplishments. If such a positive relationship does exist, then all educational stakeholders must commit themselves to increasing participation in athletics for all high school students.

Despite the plethora of literature on the link between athletics and academic achievement, there are very few studies that examine the effect of sports participation on minority females. Attention has been paid to African American males, but it appears as though the impact of high school athletics on African American females has been overlooked. This is a subgroup worthy of attention. The goal of this study was to identify relevant factors that influence commitment to

participation in high school athletics for African American females, to delineate the impact it has on academic achievement, and to explore the factors contributing to resilient African American students who maintain high academic achievement while succeeding in athletics.

CHAPTER THREE: METHODS

The purpose of this causal comparative study was to investigate the association between athletic participation and academic achievement and between athletic participation and high school graduation rates among African American high school female students. This chapter contains a description of the design, setting, participants, and instrumentation. Also included in this chapter are the procedures and data analysis used to answer the research questions.

Design

A causal comparative research design was used for this study. Causal-comparative designs generally involve the use of pre-existing or derived groups to explore differences between or among those groups on outcome or dependent variables (Schenker & Rumrill, 2004). For this study, the variables were sports participation, academic achievement, and graduation rate. Archival data were used to determine the grade point averages, graduation rates, and sports participation of 100 African American female high school students. The use of archival data was also appropriate for a causal comparative research design because the researcher could not manipulate the variables.

Research Questions

The following research questions guided this study:

RQ1: Do African American female student athletes demonstrate higher grade point averages in the core subjects of English, science, social studies, and math than African American female students who do not participate in high school sports?

RQ2: Are African American female student athletes more likely to graduate than African American female students who do not participate in high school sports?

RQ3: Do African American female student athletes who participate in a single high school sport demonstrate higher grade point averages in the core subjects of English, science,

social studies, and math, than African American female student athletes who participate in multiple high school sports?

RQ4: Are African American female student athletes who participate in a single sport more likely to graduate than African American female students who participate in multiple high school sports?

Hypotheses

The null hypotheses for this study were as follows:

H₀₁: There is no statistically significant difference in grade point averages in the core subjects of English, science, social studies, and math between African American female students who participate in high school sports and those who do not.

H₀₂: There is no statistically significant difference in the graduation rate of African American female students who participate in high school sports and those who do not.

H₀₃: There is no statistically significant difference in grade point averages in the core subjects of English, science, social studies, and math between African American female students who participate in a single high school sports and those who participate in multiple high school sports.

H₀₄: There is no statistically significant difference in the graduation rate of African American female students who participate in a single high school sports and those who participate in multiple high school sports.

Setting and Participants

Archival data were collected from 100 12th-grade African American girls at two public urban high schools in Atlanta, Georgia. Table 1 contains a demographic description of the two schools. Academically, the student achievement at both high schools matches the state and county average. Athletically, both high schools maintain a traditional athletic program, offering

17 competitive sports, nine of them offered to female students. The average number of sports offered at public high schools in Georgia is 17. Both schools serve students of similar demographics.

Table 1

Demographics of Two Schools in Study

Characteristic	School A	School B
Enrollment	<i>N</i>	<i>N</i>
Grade 9	552	542
Grade 10	518	495
Grade 11	445	445
Grade 12	341	432
Total enrollment	1856	1914
Gender	%	%
Males	47	50
Females	53	50
Ethnicity		
American Indian/Alaskan Native	0.1	0.1
Asian	0.2	0.4
Black	94.0	98.0
Hispanic	4.0	0.4
White	1.0	0.4
Two or more races	1.0	1.0
Total minority enrollment (% of total)	99.0	99.6
Free Lunch Program (% of total)	63	51
Reduced Lunch Program (% of total)	9	8
Total Economically Disadvantaged (% of total)	72	59

Instrumentation

Archival data from 100 students were used. Of 100 students, 50 were student athletes, 50 were non-athletes, 50 were from School A, and 50 were from School B. All data were stripped of identifiers and students without sufficient records were not included in this study.

Sports Participation

The students' sport participation information was collected from the athletic directors. In order to be classified as a student athlete, the student had to participate in at least one school-sponsored sport for at least 75% of the season. If a student joined a team late, or quit a team

before 75% of the season was over, she was not recognized as a student athlete. School A and School B offered the same high school sports to female athletes, and all student athletes participated on varsity level athletic teams. Twelfth grade students cannot participate on junior varsity or freshman athletic teams. The athletic directors provided lists of student athletes to the registrar, and the registrar calculated students' grade point averages in the core academic areas.

Academic Achievement

Archival data were used in order to identify the grade point averages of the students. These data were provided by the school registrars, whose primary responsibility is to maintain student records. The data collected for grade point averages were identified using ESchoolPlus (SunGuard, 2013), an electronic student information system that includes access to student grades and grade point averages. The ESchoolPlus system is able to configure grade point averages for core subjects. The information gathered from ESchoolPlus is verified and certified for accuracy through yearly reporting to the Georgia Department of Education (SunGuard, 2013). Several school districts in the state of Georgia use ESchoolPlus for recording student information and student grades. It is a reliable and accurate system and has been employed for several years.

The grade point averages received from the registrar were averages of the core content subjects only, which included all required courses for English, math, science, and social studies. Grades from elective courses were not used to calculate the students' grade point averages. These cumulative grade point averages were for 12th-grade students during the 2011–2012 school year and were based on a 4.0 scale. The grade point average for each student was an average of her entire high school career.

High School Graduation Rate

For this study, a student was considered a high school graduate if she enrolled in the ninth grade in fall 2008 and was expected to graduate during or before spring 2012. The data collected for graduation rates were provided by the graduation coaches at each school.

Graduation coaches track the progress of students as they matriculate through high school, analyze data to identify students who are at risk for dropping out, and verify accountability for all graduation data.

Procedures

Institutional Review Board approval was granted in November 2015. The administrators from both high schools strongly supported the research and signed off on the research in December 2015. After permission was granted by the schools' administrators, the researcher elicited participation from the two schools' graduation coaches, athletic directors, and registrars. This process was completed by January 2016. Archival data were then collected from the registrars at each school. The data were collected by February 2016. The data were then analyzed using SPSS.

Data Analysis

Descriptive statistics were used to describe the sample used to answer the research questions. The means and standard deviations of grade point averages of athletes and non-athletes were calculated and the graduate rate of each group of students was presented in tabled format.

RQ1: Do African American female student athletes demonstrate higher grade point averages in the core subjects of English, science, social studies, and math than African American female students who do not participate in high school sports?

An independent samples t test was used to compare the grade point averages of student athletes and non-athletes. An independent samples t test is commonly used to test the statistical differences between the means of two groups (Field, 2009). In order for an independent samples t test to be used, the dependent variable should be continuous, the independent variable should be categorical, and the groups should be independent (Field, 2009). In the current study, the independent variable was participation in high school athletics (non-athlete and athlete) and the dependent variable was grade point average.

RQ2: Are African American female student athletes more likely to graduate than African American female students who do not participate in high school sports?

The chi-square test for independence was used to determine if there was a significant association between participation in sports and graduation. The chi-square test is applied when two categorical variables are collected from a single population. In this case, the categorical variables were sports participation (non-athlete and athlete) and graduation (no/yes).

RQ3: Do African American female student athletes who participate in a single high school sport demonstrate higher grade point averages in the core subjects of English, science, social studies, and math, than African American female student athletes who participate in multiple high school sports?

An independent samples t test was used to compare the grade point averages of student athletes who participated in one sport and student athletes who participated in more than one sport. The independent variable was type of participation in high school athletics (single and multiple sports) and the dependent variable was grade point average.

RQ4: Are African American female student athletes who participate in a single sport more likely to graduate than African American female students who participate in multiple high school sports?

The chi-square test for independence was used to determine if there was a significant association between type of participation in sports and graduation. The two categorical variables were type of participation in high school athletics (single and multiple sports) and graduation (no/yes).

Summary

A causal comparative research design was used to determine the relationship between sports participation and academic achievement, and between sports participation and graduation rate. Archival data were collected from 100 12th-grade African American female students at two public urban high schools in Atlanta, Georgia. Sports participation was determined by records provided by athletic coaches. The girls' entire high school career grade point average was based on a 4.0 scale. A student was considered a graduate if she enrolled in the ninth grade in fall 2008 and was expected to graduate during or before spring 2012. Descriptive statistics were used to describe the sample used to answer the research questions. Two independent samples *t* tests were used to compare grade point averages and two chi-square tests were used to determine if there was a significant association between participation in sports and graduation. Chapter 4 contains the results of these analyses.

CHAPTER FOUR: RESULTS

The purpose of this causal comparative study was to investigate the association between athletic participation and academic achievement and between athletic participation and high school graduation rates among African American high school female students. This chapter contains the results of the analysis of the data collected from 100 12th-grade African American girls at two public urban high schools. Descriptive statistics, *t* tests, and chi-square tests were conducted to answer four research questions.

Research Questions

The following research questions guided this study:

- RQ1:** Do African American female student athletes demonstrate higher grade point averages in the core subjects of English, science, social studies, and math than African American female students who do not participate in high school sports?
- RQ2:** Are African American female student athletes more likely to graduate than African American female students who do not participate in high school sports?
- RQ3:** Do African American female student athletes who participate in a single high school sport demonstrate higher grade point averages in the core subjects of English, science, social studies, and math, than African American female student athletes who participate in multiple high school sports?
- RQ4:** Are African American female student athletes who participate in a single sport more likely to graduate than African American female students who participate in multiple high school sports?

Null Hypotheses

The null hypotheses for this study were as follows:

H₀1: There is no statistically significant difference in grade point averages in the core subjects of English, science, social studies, and math between African American female students who participate in high school sports and those who do not.

H₀2: There is no statistically significant difference in the graduation rate of African American female students who participate in high school sports and those who do not.

H₀3: There is no statistically significant difference in grade point averages in the core subjects of English, science, social studies, and math between African American female students who participate in a single high school sports and those who participate in multiple high school sports.

H₀4: There is no statistically significant difference in the graduation rate of African American female students who participate in a single high school sports and those who participate in multiple high school sports.

Description of the Sample

The archival records of 100 African American high school female students were used to answer the research questions. Half of the students were athletes and half of them were not athletes (See Table 2). Of the 50 athletes, 22 (44%) of them participated in more than one sport. Of the 100 girls, 12 (12%) were not expected to graduate on time.

Analysis of the Research Questions

Four research questions were created to investigate the association between athletic participation and academic achievement and between athletic participation and high school graduation rates among African American high school female students. Independent samples *t*

tests and chi-square tests were used to answer the questions. Each question and the analysis used to answer it are presented below.

Table 2

Description of the Sample

Descriptor	<i>n</i>	%
Type of student		
Non-athlete	50	50.0
Athlete	50	50.0
Number of sports (50 athletes)		
One sport	22	44.0
Multiple sports	28	56.0
Graduate on time		
No	12	12.0
Yes	88	88.0

Research Question 1

Do African American female student athletes demonstrate higher grade point averages in the core subjects of English, science, social studies, and math than African American female students who do not participate in high school sports?

An independent samples *t* test was used to compare the grade point averages of student athletes and non-athletes. The independent variable was participation in high school athletics (athlete and non-athlete) and the dependent variable was grade point average. Table 3 contains the means and standard deviations of the grade point averages for each group. The table also contains the results of the *t* test. Although the athletic students had a higher grade point average ($M = 3.10$) than those who did not participate in athletics ($M = 2.90$), there was no statistically significant difference between the two groups of African American female high school students. The researcher failed to reject the null hypothesis..

Table 3

Analysis of Research Question 1

Group	<i>n</i>	Grade point average		<i>t</i>	<i>P</i>
		<i>M</i>	<i>SD</i>		
Non-athlete	50	2.90	.61		
Athlete	50	3.10	.53	-1.780	.078

Research Question 2

Are African American female student athletes more likely to graduate than African American female students who do not participate in high school sports?

The chi-square test for independence was used to determine if there was a significant association between participation in sports and graduation. The categorical variable was sports participation (non-athlete and athlete) and graduation (no/yes). Table 4 contains the number and percentage of graduates in each group. There was no significant difference in graduation rate between the two groups ($\chi^2 = .379$, $df = 1$, $p = .538$). The researcher failed to reject the null hypothesis.

Table 4

Analysis of Research Question 2

Type of student	Graduation			
	No		Yes	
	<i>n</i>	%	<i>n</i>	%
Non-athlete	7	14.0	43	86.0
Athlete	5	10.0	45	90.0
Total	12	12.0	88	88.0

Research Question 3

Do African American female student athletes who participate in a single high school sport demonstrate higher grade point averages in the core subjects of English, science, social studies, and math than African American female student athletes who participate in multiple high school sports?

An independent samples t test was used to compare the grade point averages of student athletes and non-athletes. The independent variable was type of participation in high school athletics (single and multiple sports) and the dependent variable was grade point average. Table 5 contains the means and standard deviations of the grade point averages for each group. The table also contains the results of the t test. Although those who participated in more than one sport had a higher grade point average ($M = 3.17$) than those who participated in only one sport ($M = 3.01$), there was no statistically significant difference between the two groups of African American female high school athletes. The researcher failed to reject the null hypothesis.

Table 5

Analysis of Research Question 3

Group	n	Grade point average		t	p
		M	SD		
One sport	22	3.01	.54	-1.069	.291
Multiple sports	28	3.17	.52		

Research Question 4

Are African American female student athletes who participate in a single sport more likely to graduate than African American female students who participate in multiple high school sports?

The chi-square test for independence was used to determine if there was a significant association between type of participation in sports and graduation. The two categorical variables were type of participation in high school athletics (single and multiple sports) and graduation (no/yes). Table 6 contains the number and percentage of graduates in each group. There was no significant difference in graduation rate between the two groups ($\chi^2 = .036$, $df = 1$, $p = .849$). The researcher failed to reject the null hypothesis.

Table 6

Analysis of Research Question 4

Type of student	Graduation			
	No		Yes	
	<i>n</i>	%	<i>n</i>	%
One sport	2	9.1	20	90.9
Multiple sports	3	10.7	25	89.3
Total	5	10.0	45	90.0

Summary

The archival records of 100 African American high school female students were used to answer four research questions. No statistically significant differences were found between athletes and non-athletes when comparing grade point averages or graduation rates. Nor were statistically significant differences in grade point averages or graduation rates found between African American high school female students who participated in one or more sports. A discussion of the results, conclusions that can be drawn about the results, and recommendations for further study are presented in Chapter 5.

CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this causal comparative study was to investigate the effect of athletic participation on the academic achievement of African American female high school students. Research (Fredricks & Eccles, 2006; Daniels & Leaper, 2006; Watt & Moore, 2001) generally reports positive outcomes from engaging in athletics at all age levels, one of which is increased academic performance. Although several educational benefits result from participation in high school sports, African American students do not always experience the positive outcomes that other populations share. Furthermore, there is a gap in the literature on the impact athletic participation has on African American girls. The focus of this research was to delineate the impact sports participation has on the academic achievement and graduation rates of African American female student athletes, and to explore the factors that contribute to their academic success.

Discussion

Research Question 1

Do African American female student athletes demonstrate higher grade point averages in the core subjects of English, science, social studies, and math than African American female students who do not participate in high school sports?

This study hypothesized that there would be no significant statistical difference of grade point averages in the core subjects of English, science, social studies, and math between African American female students who participated in high school sports and those who did not. After examination of the results of this study, there was no statistically significant difference between the two groups of African American female high school students, therefore the researcher failed to reject the null hypothesis. Although the athletic students had a higher grade point average than

those who did not participate in athletics, it is clear that the difference in grade point averages between the two groups was not great enough to make a significant statistical difference in the core academic subjects of English, science, social studies, and math between African American female athletes and African American female non-athletes.

It has been argued that sports team participation fosters student identification with schools and school-related values, including performing well academically (Marsh & Kleitman, 2003a). But, while the literature generally shows a positive correlation between female athletes and academic achievement, the results of studies on this topic remains inconclusive. More current research reports a positive relationship between athletics and academics. A study examining the associations between sports participation, physical activity, and academic outcomes found that regardless of whether academic success was related to the physical activity itself or participation on sports teams, there were positive associations between physical activity involvement and academic achievement among students (Fox et al., 2010).

Overall, high school athletes like school more, obtain a higher grade point average, have greater academic and career aspirations, and are more likely to achieve a college degree (Broh, 2002; Eccles, Barber, Stone, & Hunt, 2003; Marsh & Kleitman, 2003b; Miller et al., 2003; Troutman & Dufur, 2007). Other research indicates that athletes are high achievers (Cox, 2007) and that participation directly contributes to greater performance in school (Guest & Schneider, 2003). Considering that sports participation encourages a number of positive academic and mental health outcomes, it is especially important that girls have every reason to become involved with and continue in sports (Knifsend & Graham, 2012b). Researchers also suggests that talented athletes frequently perform well not only in sports, but also in the academic setting (Durand-Bush & Salmela, 2002; Umbach et al., 2006; Watt & Moore, 2001). These studies

report that talented athletes have higher grade point averages and graduation rates in comparison to students that are less athletic (Watt & Moore, 2001) and that they are highly motivated to perform well in academics (Umbach et al., 2006).

But despite studies indicating that participation in athletics and academic achievement have a positive correlation, there have been several documented studies contradicting this conclusion. Coleman's (1961) work, *The Adolescent Study*, triggered a debate over the relationship between participation in sports and academic achievement. This debate continues today. Coleman (1961) concluded that a negative correlation exists, primarily due to the amount of time that participation in sports takes away from time that could be devoted to studying. This can be especially true for student athletes participating in several sports or year-round sports. Students often struggle with time management; without mastery of this skill, their grades can suffer.

Although sports participation has a role within the overall development of the student-athlete, a negative impact on academic achievement is the cost of participation (Streich, 2009). Even with the wealth of literature indicating a positive correlation between athletic participation and academic achievement, correlation is not indicative of causation (Hartman, 2008). Student athletes may just be better overall students, and it may have nothing to do with the fact that they participate in athletics. Furthermore, Tower (2008) suggested that in determining the factors related to motivation and sports participation, an argument could be made that student-athletes do well in school and academic endeavors because they need to remain eligible to play their particular sport and not because they are genuinely interested in education. The relationship between athletic participation and academic achievement as identified by grade point averages,

has yet to be linked, and remains ambiguous; therefore the results of this study supports other inconclusive studies.

The results of this study is also supported by several theories that are often connected to athletics and achievement. The attribution theory, which is probably the most influential contemporary theory with implications for academic motivation, incorporates behavior modification because it supports the idea that students are motivated by the outcome of being able to feel good about themselves. The desire to have positive feelings supports the notion that student athletes seek success in athletics and academics. But motivation and the establishment of positive feelings is not only a result from athletic participation. Anderman (2002) documented that middle and high school students who felt a greater sense of belonging with their peers obtained a higher grade point average and had fewer problems at school, which indicates that having a greater sense of belonging at school may promote adolescents' academic motivation, engagement, and achievement, relative to those with a lower sense of belonging. This sense of belonging can come from relationships with teachers and other students, not just from coaches or participation on an athletic team.

The PASS theory, established in 1992, was one of the first major sports theories based on the belief that sports participation is directly linked to educational attainment (American Sports Institute, 2015). It was established by the American Sports Institute (2015), a nonprofit educational organization, on the premise that athletics become a guide for improving students in the classroom as well as on the playing field. ASI views athletics as a solution to poor academic performance in school, and stresses the positive effect that participation in athletics has on student engagement, student learning, and student achievement (American Sports Institute, 2015). Yet many of the benefits such as the ability to concentrate over a prolonged period of

time, to relax and stay in control when in class, taking tests, doing homework, to participate in physical activities, to establish rhythm by maintaining regular schedules, to be flexible in order to establish better relationships with teachers and classmates, and to develop an attitude of patience and perseverance (American Sports Institute, 2015) that students receive from participation in sports, can also be received from participation in other extra curricular activities. Several of these academic benefits cannot solely be attributed to sports participation.

Research Question 2

Are African American female student athletes more likely to graduate than African American female students who do not participate in high school sports?

This study also hypothesized that there would be no statistically significant difference in the graduation rates of African American female students who participated in high school sports and those who did not. The results of this study indicate that a statistical difference does not exist between the graduation rates of African American students who participate in high school sports and those who do not. The majority of the literature does not confirm these results. Student participation in sports increases self-esteem, high self-esteem increases academic achievement, and high academic achievement eventually leads to school completion and higher graduation rates (Watt & Moore, 2002). Overton's (2001) study examining the difference in educational performance of high school athletes versus non-athletes in North Carolina found that athletes had a higher mean GPA, better attendance rate, lower discipline referral percentage, lower dropout rate, and higher graduation rate. Troutman and Dufur's (2007) research went beyond high school completion rates and tracked students into college. They examined whether or not females who participated in high school athletics are more likely to graduate than their counterparts and found that females that engage in interscholastic high school sports are more

likely to complete college than those who do not. O'Bryan et al.'s (2008) study on the relationship between African American student participation in extracurricular activities and parental involvement found that when all extracurricular activities were examined simultaneously, athletic participation was the only activity that continued to be significantly related to a reduction in a student's likelihood of dropping out of high school.

Moreover, a longitudinal study tracking student high school completion rates found that students who were involved in extracurricular activities had a greater chance of graduating from high school (Curtin, Ingels, Wu, & Heuer, 2002). Data indicated that even if students only participate in extracurricular activities one hour a week, they still have a better chance at graduating high school on time than students who are not involved in any extracurricular activities. Simply put, students who are involved in extracurricular activities are more likely to earn a high school diploma (Curtin et al., 2002). Women graduate at higher rates than men, and whites more often than blacks, but all demographic cohorts among student athletes, including African Americans, graduate at higher rates than among the general student body (Franklin et al., 2006). The National Collegiate Athletic Association (2005) reports also indicate that female student athletes have a higher graduation rate than their male counterparts. According to the literature, female athletes not only have a higher graduate rate than non-athletes, but they also have higher overall grade point averages, and student athletes' higher graduation rates are likely a result of their higher grade point averages.

Even though the majority of the literature (Fredricks & Eccles, 2005; Cox, 2007, Eide & Ronan, 2001) indicates that student athletes perform better academically and as a result are more likely to graduate high school, the literature remains inconsistent. Harris (2010) suggested that the benefits from athletic participation varies depending on racial groups of students. Both

African American male and female student athletes are graduating at lower rates than their White counterparts. Arguably, the difference in the graduation rate of African American females has less to do with academic participation and more to do with race. Furthermore, the studies previously mentioned (Curtin, Ingels, Wu, & Heuer, 2002; Curtin et al., 2002) found an increase in graduation rates for students participating in extracurricular activities, and not just in sports. Activities such as choir, band, dance, debate, and JRotc are all school sponsored extracurricular activities, therefore the benefits that participation in extracurricular activities provide cannot be limited to athletics.

In an overview of research, the National Research Council (2001) identified a history of poor academic performance as one of three leading school related characteristics associated with dropping out of high school. The conceptual framework for this study is that the adolescent developmental benefits that students acquire from sports participation can lead to increased academic achievement, which as a result, can increase the likelihood of graduation. Although there was not a statistically significant difference between the graduation rate of student athletes and non-student athletes, the graduation rate of student athletes was still higher. This difference may not be solely attributed to academic benefits resulting from participation in athletics, but the possibility must be considered.

Research Question 3

Do African American female student athletes who participate in a single high school sport demonstrate higher grade point averages in the core subjects of English, science, social studies, and math, than African American female student athletes who participate in multiple high school sports?

This study hypothesized that there would be no statistically significant difference in grade point averages in the core subjects of English, science, social studies, and math between African American female student athletes who participated in multiple high school sports and African American female student athletes who participated in only one high school sport. This study found no statistically significant difference in grade point averages in the core subjects of English, science, social studies, and math between African American female student athletes who participated in multiple high school sports versus those who participated in only one high school sport, therefore the researcher failed to reject the null hypothesis. The literature on the impact of participating in multiple sports on academic achievement is both limited and inconclusive.

Recent studies examining extracurricular participation indicate that, on average, high school students participate in two to three activities (Fredricks & Eccles, 2010), but little research has examined how the breadth of activities in which an adolescent is involved relates to academic performance (Knifsend & Graham, 2012a). While there are several studies (Fredricks & Eccles, 2006; Marsh & Kleitman, 2003b) supporting the notion that sports participation is associated with higher academic outcomes, the findings of studies that examine the impact that participation in multiple sports has on academic achievement are contradictory. Inconsistent findings may be due to different effects of sports types (interscholastic, intramural) and sports choices (team, individual) on academic performance (Kim, 2014). Fox et al.'s (2010) study on sports team participation and student grades found that for high school girls and boys, the more teams the students participated in, the higher overall grade point average the students earned. For high school girls, their respective mean GPAs were 2.73, 2.85, 3.06, and 3.20 for participation in zero, one, two, and three school-sponsored sports, respectively. This is

consistent with the current study whereas the grade point averages for student athletes participating in multiple sports was slightly higher than that of students solely participating in a single sport.

Another study, conducted by Fredricks and Eccles (2006), found that adolescents participating in a greater number of activities in 11th grade obtained a higher grade point average and had greater expectations about their educational attainment during and after high school. Additionally, these results suggest that engaging in an optimal number of activity domains may foster later academic engagement, a protective factor against dropping out of school prematurely (Fredricks, Blumenfeld, & Paris, 2004). Surprisingly, there was no longitudinal link for overall grade point average.

In contrast, although the research is scarce, there have been studies suggesting that participating in too many sports can hinder academic achievement. While adolescents who are not involved in any activities may miss out on opportunities to experience the benefits sports participation creates, youth who are involved in too many activity domains may face difficulties determining where they fit in and belong with their peers, a central objective during adolescence (LaFontana & Cillessen, 2010), which can negatively impact their academic performance. Considering academic engagement and grade point average, two activity domains may be the level at which adolescents benefit from positive skill development that promotes academic engagement and achievement, yet also have enough time and energy to complete their schoolwork; students who are highly involved in sports may simply not have enough time to complete their schoolwork or engage fully in class (Dworkin et al., 2003). In addition, Fredricks (2011) documented that the time spent in activities shared curvilinear relationships with achievement test scores, expectations for educational attainment, and level of education two

years after high school; however his studies indicate that while greater extracurricular involvement generally relates to better academic outcomes, there is a threshold at which higher levels of involvement no longer predict more positive outcomes. Therefore, the results of this study is supported by that of previous studies.

The results of this study is supported by the theoretical framework of the Promoting Achievement in Schools through Sports (PASS) theory (ASI, 2015) because athletics is considered a solution to students exhibiting weak academic performance in school (Muir, 2005). Even though there was no statistically significant difference in the grade point averages of students who participated in one sport and students who participated in multiple sports, both groups of student athletes had high overall grade point averages at 3.01 and 3.17 respectively. Their involvement in sports alone, regardless of the number of sports they participated in, can arguably be attributed to the high grade point averages.

Research Question 4

Are African American female student athletes who participate in a single sport more likely to graduate than African American female students who participate in multiple high school sports?

This researcher hypothesized that there would be no statistically significant difference in the graduation rate of African American female student athletes who participate in a single sport and African American female student athletes who participate in multiple sports. After examination of the results of this study, there was no statistically significant difference between the two groups of African American female high school student athletes therefore the researcher failed to reject the null hypothesis. The literature is inconclusive on the impact that participating in multiple sports has on the graduation rate of student athletes. It is often assumed that

participation in sports is detrimental to academic outcomes such as grade point averages, standardized test score and graduation (Corneliben & Pfeifer, 2007). Another major disadvantage of high school student athletes is that they often have unrealistic expectations of becoming professional athletes and can behave as if they have already made it. A study conducted by Eitle and Eitle (2002) on factors that predict participation in different sports found that cultural disadvantage contributes to an increased interest in and perhaps dependence on athletics.

Although a dependence on athletics is not ideal, it is however, a motivating factor for graduating from high school. In a study of 11th grade students' extracurricular involvement, Fredricks and Eccles (2006) found that adolescents participating in a greater number of activities in 11th grade obtained a higher grade point average and had greater expectations about their educational attainment during and after high school. As the number of extracurricular involvement increased, their expectation and ability to graduate high school and explore post secondary options increased as well. Spence (2000) also reported that most African American student-athletes believed post-secondary education would increase their opportunity for success in the future, and therefore ensure high school graduation in order to pursue collegiate athletic aspirations. Yet, there are still studies (Dworkin et al., 2003; Fredricks, 2011) indicating that participating in too many sports can hinder academic achievement and thus negatively effect graduation rate. Although there was no statistically significant difference between the graduation rates of the two groups, the graduation rate of student athletes who only participated in one sport was slightly higher and both rates were higher than that of non-student athletes. The results of this study is supported by the conflicting literature.

These results are also supported by the theoretical framework of the attribution theory (Heider, 1958); with the premise that students want to understand and explain the events or outcomes in their lives, including what happens in academic settings and therefore identify attributions for their outcomes (Weiner, 1980). The attribution theory is connected to athletic participation because student athletes are able to feel good if they experience success from athletic competition which results in higher self esteem. The relationship between self esteem and academic achievement is well established (Aryana, 2010; Arshad & Mahmood, 2015), and students with higher self esteem are more likely to graduate high school (Daniels & Leaper, 2006).

Implications

Understanding the effect of extracurricular activities on students' academic achievement has been a focus of sociological inquiry for the past three decades (Eitle, 2005). Whether or not sports participation has a positive or negative social influence on academic achievement has been debated extensively by scholars since the inception of the field of sport sociology (Coakley 2010). Despite the wealth of studies indicating that sport participation is likely to demonstrate positive influences on many academic outcomes, the debate surrounding whether sports participation differentially affects individuals based on demographic factors like gender remains (Broh, 2002; Crissey & Riegle-Crumb, 2009; Marsh & Kleitman, 2003; Videon, 2002). The findings of this research indicate that participation in high school sports does not have an impact on the academic achievement of African American female students. In this study, the grade point averages of African American females who participated in high school sports were slightly higher than the grade point averages of those who did not participate in sports, yet it was not substantial enough to be statistically significant. African American female athletes also

graduated from high school at a higher rate than African American female non-athletes, but again, the difference in graduation rate was not statistically significant. Finally there was no statistically significant difference between the grade point averages or graduation rates of African American female student athletes who participated in a single sport, and those that participated in multiple sports.

The results of this study do not indicate that student athletes make better grades and graduate high school at a higher rate than non-student athletes. But, the truth is, there is very little evidence suggesting that athletic participation detracts from academic achievement, and evidence of the benefits that athletic participation has on students is substantial. For the most part, studies find that the association between interscholastic sport participation and academics are generally positive across numerous outcomes (Feldman & Matjasko, 2005). Studies have shown that both male and females report higher educational aspirations, an increased likelihood of being on an academic track, and higher chances of attending a four-year college (Marsh & Kleitman 2002, 2003). If a vast majority of the literature reports positive correlations between participation in athletics and academic achievement, then African American students should be encouraged to participate in school sponsored sports. Increasing student participation in athletics should be an area of focus for all educational stakeholders. Student athletes graduate at higher rates and make better grades than the general student body (Franklin et al., 2006). If athletic participation is a factor contributing to higher academic performance among African American students, then perhaps a shift in education needs to be made to recruit and encourage student participation.

The achievement gap between African American students and White students is considerable and has been documented consistently at all education levels (Simms, 2012). The

gap goes beyond high school. A recent analysis indicated that among all first-time postsecondary students, 36% of White students attain a bachelor's degree within 6 years compared with only 17% of black students (Radford, Berkner, Wheelless, & Shepherd, 2010). The identification of risk factors is an important first step in closing achievement gaps (Vesey, 2010). Participation in high school sports is a factor that can counter the racial disparity of educational measures. The Black-White achievement gap is directly connected to educational attainment (Radford et al., 2010), and any practice that can potentially reduce this gap should definitely be explored.

The implication for teaching indicated by this study is simple; more African American girls need to get involved in school-sponsored sports. It is true that adolescents who opt to participate in sports, or who are selected to be members of an athletic team, may already possess characteristics and resources that contribute to academic success (Eide & Ronan, 2001; Eitle, 2005; Feldman & Matjasko, 2005; Videon, 2002). Hartman (2008) noted that correlation does not necessarily indicate causation, but there is enough literature to acknowledge that a relationship between athletic participation and academic achievement exists. While a variety of reasons why athletes participate in school-sponsored athletics exist, athletes are ultimately seeking some type of satisfaction (Marsh & Kleitman, 2003a). Females actively participate in sports more today than they ever have in the past (Stevenson, 2010). Focusing on playing sports at the collegiate level and possibly earning a college scholarship, hoping to create friendships or gain status or popularity, or just attempting to stay active and get involved are all viable reasons to participate in high school sports. Brown, Ruel, and Medley-Rath's (2011) study investigating the attitudes of high school boys and girls toward potential increased opportunities for girls to participate in sports found that on average, high school students are supportive of increased

opportunities for girls to participate in sports. This study also demonstrated racial minority groups, compared with whites, expressed positive attitudes toward increased opportunities for girls to participate in sports. Hardin and Whiteside (2009) reported that young men and women (aged 15-26) support equality in sports for women and men, and they support women having the right to play sports. They value equity and believe that girls should be given the same opportunities as boys. According to Kauffman and Wolff (2010), athletes of color are more welcoming of female sports participation. These findings indicate that African American students want more opportunities to get involved in school-sponsored sports. The challenge for educational stakeholders is to provide these opportunities.

The literature indicates that students have the desire to play sports, but they must have the opportunity and encouragement to do so. Unfortunately, school districts across the country have encountered major reductions in state and local funding, forcing administrators to identify areas for budget reductions and opening the door for opponents who might target extracurricular activities as easy choices (Lumpkin & Favor, 2012). Educational stakeholders must continue to advocate for all extracurricular activities, especially athletics. Even if there were no academic benefits that athletic participation provides, there is still enough evidence highlighting the positive effects that participation in high school sports has on students. Sports participation is associated with higher levels of self-knowledge, emotional regulation, problem-solving, goal attainment, teamwork, and skill development (Dworkin et al., 2003). The potential of sports to bring parents, and in particular African American parents, to schools cannot be over-emphasized (O'Bryan et al., 2006). There is previous research supporting that an increase in self-esteem is a direct result of athletic participation (Triggemann, 2001). Those who participate in extracurricular activities develop increased positive feelings toward school (Johnson et al.,

2001). Many researchers have argued that the coach is the most significant shaper of values and life skills for adolescent athletes (Danish et al., 2002; McCallister et al., 2000), and the relationship between a student athlete and a coach can only be established in participation in athletics. Finally, there are numerous studies (Taliaferro et al., 2010; Franklin et al., 2006) that found that sport participation was beneficial in assessing the relationship between sport participation and health risk behaviors, including dietary habits, weight loss, sexual activity, interpersonal violence, and substance use. These benefits alone are substantial enough to continue to promote and encourage athletic participation among high school students, but combined with the academic benefits sports provide, sport participation becomes less of an asset and more of a necessity for personal and academic student growth.

Limitations

Several limitations exist in this study, with the most severe regarding the archival data received. Both high schools had a high transient population, and as a result, accurate records may not have been available for all students, particularly those who had transferred schools. The limitation, however, is not restricted to the possibility of academic data being lost. Another concern is whether or not the data was entered correctly and properly maintained by the school system. This concern extends to the school registrars, athletic directors, and graduation coaches as well.

Another threat to the internal validity of the study is that not all students that desired to participate in high school athletics may have been able to do so. Because this study is limited to twelfth grade student athletes, students had to make the varsity level teams in order to participate in athletics. Twelfth grade students are not allowed to participate on the varying level teams (junior varsity or freshmen), and both schools only offer varsity level teams in soccer, golf, cross

country, and swimming. Both schools have highly successful athletic teams, which heightens the level of competition in simply making the team. Students may have participated in high school athletics during their ninth, tenth, and eleventh grade school years, but were unable to make the team during their twelfth grade school year. Additionally, some students, specifically those in lower-income areas, often have familial responsibilities or financial obligations that require them to keep a part-time job that prevents them from the opportunity to participate in extracurricular activities. Finally, there are students who are ineligible to participate in school-sponsored athletics because they do not meet the minimum academic requirement to participate, or because of student behavioral issues.

Another limitation is that both schools used in this study have highly successful athletic programs and several former students are now professional athletes. This may influence student participation in sports because students may believe that they have a higher likelihood of becoming a collegiate or professional athlete. In addition, there is a high emphasis placed on athletics at both school. They even have an athletic liason who is responsible for checking students weekly progress reports, and ensuring academic eligibility. This limitation affects generalization regarding student athletes. The final limitation is that the results were generalized and the sample population was small.

Recommendations for Future Research

There have been several studies examining the impact of sports participation on academic achievement. Previous studies comparing the academic performance of African American student athletes to African American non-athletes have been inconclusive. However, the results of studies that solely focuses on comparing the academic achievement of female student athletes and non-athletes generally support the notion that athletic participation improves academic

performance. This study, however, is one of the first that examined the academic performance of African American female high school students. To help close this gap in literature, future research should be conducted in the following areas to validate or refute the results of this study:

1. Further studies can be conducted with a larger sample size of African American female student athletes and non-athletes to see if the results change. This would enable future researchers to make accurate generalizations regarding the impact of athletic participation on academic achievement.
2. Further studies could examine the relationship between high school athletic participation and the grade point average and graduation rate of other minority students.
3. Further studies could examine the impact of sports participation on the academic achievement of African American girls in both private and public school settings. Results may differ depending on the school environment.
4. Further studies could examine the effect of extracurricular activities (band, drama, debate, etc.) other than athletics on the academic achievement of African American girls.
5. Further studies could examine the relationship between participation in high school athletics and college enrollment among African American males and females. Prior research (Marsh & Kleitman, 2003a) indicated that students who participate in team sports are more likely to be enrolled at a university and for a longer period, and have higher levels of tertiary education and higher educational aspirations.
6. Further studies could examine the role of parental involvement in the academic achievement of African American high school students and student athletes because prior research supports the notion that parental involvement is a critical factor in ensuring academic success. This relationship is critical because research has shown that many

black students come from economically poor households, which arguably affects the availability of material resources and parental involvement in the students' school lives (Buttaro, Battle, & Pastrana, 2010).

7. Further studies could examine if academic achievement differences exist based on the specific sport or the level (varsity, junior varsity, etc.) of competition.
8. Further studies could examine if high school athletes make better grades when they are in season or when they are out of season. There is a commonly held belief within the athletic communities that student athletes perform better academically during their season of athletics competition than they do outside the season of competition because the structured nature of the playing season leads to more structure in student athletes' academic lives and better academic performance (Scott, Paskus, Miranda, Petr, & McArdle, 2008).
9. Further studies could examine whether the results differ if the African American student athletes and non-athletes attend schools with a student population of majority White students. In this study, participants attended two different comprehensive high schools, but the student population at both schools was majority African American. Schools with a majority White student population, typically have a majority White faculty and staff population. Research suggests that White teachers' failure to address or value black students' primary culture can be a significant factor in their academic success (Douglas, Lewis, Douglas, Scott, & Garrison-Wade, 2008).
10. Further studies could examine whether or not the results differ in areas where African American students are not economically disadvantaged. This applies to student athletes and non student athletes. There is research suggesting that the achievement gap is

exclusively attributed to low socioeconomic status (Magnuson, Rosenbaum, & Waldfogel, 2008).

11. Further studies could examine the relationship between academic achievement and sports participation using Herzberg's (1968) motivation-hygiene theory, which discusses intrinsic motivation and has been shown to have a good fit with recent empirical research, as a theoretical basis (Sauchau, 2007).
12. Further studies could examine the relationship between academic achievement and participation in sports using Zimmerman's (2000) self-regulated learning theory. Self-regulated learning refers to the process of learners actively taking control and responsibility for their learning (Erlich & Russ-Eft, 2011). Those who self-regulate learning employ a variety of strategies that aid in learning and applying the content (Zimmerman, 2000). Self-regulated learning has been fruitfully applied to athletics (Zimmerman & Kitsantas, 2002).
13. Further studies could examine the relationship between academic achievement and participation in sports using Thorndike's (1911) Law of Effect. This behavioral law suggests that learning is direct and students can and should be conditioned to develop and exhibit certain behaviors. While a variety of reasons why athletes participate in school-sponsored athletics exist, athletes are ultimately seeking some type of satisfaction (Marsh & Kleitman, 2003a).
14. Further studies could address the nature of the academic culture of students who participate on sports teams compared to those who do not and how this contributes to academic success. This comparison may include an examination of school policies regarding student academic requirements for sports team participation or social norms

among sports teammates and athletic coaches regarding academic achievement (Fox et al., 2010).

15. Further studies can examine the discrimination experienced by high school female athletes and how it affects their academic achievement. Understanding discrimination experienced by female athletes is crucial to ensuring their academic, emotional, and social well-being (Knifsend & Graham, 2012b).
16. Further studies can examine minority students' perception or motivation regarding athletic participation. While Black/African American are encouraged to participate in sports as a means to improve educational outcomes, Latino American students tend to participate more in sports for the social benefits such as friendship (Faircloth & Hamm, 2005). Although there is a perception of "choice" when it comes to participating in a particular type of extracurricular activity, this is not necessarily true for Asian American students (Kao, 2000).

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