

An Examination of the Effects of School-Based Varsity Sport Participation and Parental Involvement on Male Academic Behaviors ¹

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Abstract

Using data from the Education Longitudinal Study of 2002 (ELS:2002), we developed and empirically tested a conceptual model to assess the longitudinal impact of school-based athletic participation and parental involvement, along with other factors, on the college-bound behaviors of male high school seniors attending public schools in the U.S. The conceptual model was tested using multiple regression and path analysis. Results indicate that 10th grade varsity sport is a significant positive predictor of 12th grade college-bound behaviors, net antecedent model variables (including SES and prior achievement). Additionally, African American parents are significantly more involved with their sons than white parents are, and African American students are significantly more likely to engage in college-bound behaviors. Implications for educational policy are discussed.

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The importance of parents in the socialization of pro-academic behaviors and outcomes of children gained national attention with the enactment of the infamous “No Child Left Behind” Act. Researchers, however, have long acknowledged the importance of parental involvement in the promotion of positive educational outcomes for children. The critical role of parents in the future academic success of their children continues to garner the interest of academicians, educators, school reformists, and policy-makers. Each of these audiences are searching for proven strategies to reduce the achievement-gap between white America and the nation’s impoverished and minority populations, while simultaneously attempting to assuage growing concerns over producing a skilled workforce capable of competing in an ever-growing global market.

Many have argued that developing effective strategies to increase parental involvement is a vital component in fostering academic success (Epstein 1995; Hara 1998). The research literature continues to document the positive benefits of parental involvement (PI) on youth development. Empirical examinations have revealed the significant influence of PI in the reduction of various forms of adolescent delinquency (Hoffmann and Dufur 2008), including early onset sexual activity (Velez-Pastrana, Gonzalez-Rodriguez and Borges-Hernandez 2005). Focusing specifically on academic outcomes and behaviors, the empirical evidence suggests that PI improves grades (Bogenschneider 1997; Broh 2002) standardized test scores (Lee, Kushner, and Cho 2007; Yan and Lin 2005) and reduces the likelihood of students dropping out of school (Carpenter and Ramirez 2007).

Although school-sponsored athletic involvement, like parental involvement, has rather consistently been shown to positively affect several indicators of academic success (Guest and Schneider 2003; Hawkins and Mulkey 2005; Marsh and Kleitman 2003), school-based sport participation has generally not been included in the discourse on developing effective strategies geared towards fostering, nurturing, and improving the involvement of parents in their children’s educational lives. Since these school-sponsored sports activities are spheres of the total school experience, they act as a connection between the adolescent subculture within schools. Because of the wide appeal and interest of sport for both parents and their children, participation in school-based sport may foster increased interactions between adolescents and their

parents around educational matters. Athletic involvement in schools may then positively affect educational outcomes for secondary school students, both directly and indirectly, through increased parental involvement. This study extends research on this topic by examining student participation in varsity sport, parental educational involvement, and positive academic outcomes.

School-Based Sport as a Context for Adolescent Development

Despite the efforts of some school reformists, school-based sport remains a pervasive and prominent feature of American high schools. Using data from the National Educational Longitudinal Study (NELS: 88), nationally representative data collected on schools and students, Braddock (2005) demonstrated the wide availability of participation in interscholastic sport. Interscholastic (varsity) sport was available in 98% of high schools. In addition to providing opportunities for participation, school-sponsored athletic programs involve a significant number of students (Braddock 2005). According to data from the Education Longitudinal Study of 2002 (ELS: 2002), over half (55%) of sophomores report involvement in school-based sport (Ingles, Burns, Chen, Cataldi, and Charleston 2005), with males reporting higher rates of participation than females (61% and 49% respectively).

It has been posited that participation in organized sports provides opportunities for adolescent socialization (Rees, Howell, and Miracle 1990), identity formation, and the development of social and human capital (Braddock 2005). The time commitment and investment that are necessary of varsity athletes not only structures what these students do with their time outside of the classroom, but it also provides additional opportunities for them to develop positive social networks in the form of peers who share similar values and adult mentors (Kahne et al. 2001; McNeal 1999; Patrick et al. 1999). Thus, school-based sport participation has the potential to generate social capital by providing additional opportunities for its participants to interact with, and form mentoring relationships with, coaches and other adults (parents, school staff, and community members) who are supportive of these activities (Dworkin, Larson, and Hansen 2003; Smith 2003).

Correlates of Parental Educational Involvement

The research literature indicates that parental involvement and various measures of student academic success have many factors in common.

Family structure, parental educational level, family socioeconomic status, student gender and age, parental gender, and race/ethnicity have all consistently been identified as correlates of PI (Bogenschneider 1997; Garg, Kauppi, Lewko, and Urajnik 2002; Herrold and O'Donnell 2008; Sy, Rowley, and Schulenberg 2007). Although parents with lower educational attainment and SES, and parents from racial/ethnic minority populations, exhibit lower levels of parental involvement in schools (Herrold and O'Donnell 2008; Ho Sui-Chu and Willms 1996; Pong, Hao, and Gardner 2005; Sy et al. 2007), there is now evidence to suggest these parents engage in greater levels of PI in the home sphere.

Parent gender and student gender are two additional factors associated with parental involvement, exerting individual effects and interaction effects on PI (Bogenschneider 1997; Garg et al. 2002; Lee et al. 2007; Muller 1998). Mothers are significantly more involved in the schooling matters of their children than fathers are (Garg et al 2002; Muller 1998), while fathers are significantly more likely to interact with their sons than with their daughters (Harris et al. 1998; Lamb 1997; Muller 1998).

As children make their transition through the educational system, parental involvement changes (Muller 1998) and parents tend to become less involved with their children and their schools (Herrold and O'Donnell 2008). There is some evidence that parental self-efficacy and educational aspirations (Anderson and Minke 2007) also affect PI. Parental educational aspirations and expectations, on the other hand, are influenced by parents' confidence in their children's academic abilities (Wentzel 1998). Variations in parental involvement have also been attributed to characteristics of schools, with greater levels of PI occurring in smaller schools and private schools (Herrold and O'Donnell 2008).

Conceptualization and Measurement of Parental Involvement

Parental involvement has been conceptualized as a variety of specific parental behaviors and practices. Some studies have examined parental aspirations (e.g., Garg et al. 2002; Garg, Melanson, Levin 2007), parental rules (e.g., Fan 2001; Sy et al. 2007) or parental supervision (e.g., Yan 1999). Others have conceptualized PI as communication with children regarding educational matters (e.g., Fan 2001; Garg et al. 2007; McNeal 1999; Thompson, Gorin, Obeidat, and Chen 2006), or communication with teachers or schools regarding educational matters (e.g. Fan 2001; Ho Sui-Chu and Willms 1996).

Other conceptualizations of PI include participation in school functions or PTA involvement (e.g., Fan 2001; Gutman, Sameroff, and Eccles 2002; Pong et al. 2005), checking or helping with homework (e.g., Garg et al. 2002; Gonzalez-Pienda et al. 2002; Lopez 2007), and indices constructed with some combination of the above (e.g., Gutman and Midgley 2000; Jeynes 2005). Thus, PI has been defined as various activities of home and school involvement, involvement in school governance, involvement surrounding school choice, and parental educational expectations and aspirations.

Parental Involvement and Academic Outcomes

As discussed above, the conceptualization and measurement of parental involvement lacks consensus in the research literature. As a result, empirical examinations of the relationship between PI and various positive adolescent outcomes have been conducted with disparate measures of the construct. Despite the inconsistency of measurement, the empirical evidence suggests that generally, parental involvement benefits a host of youth educational outcomes. The research literature indicates that PI significantly improves academic achievement (Bogenschneider 1997; Fan and Chen 2001; Garg et al. 2002; Hawkins, Amato, and King 2007; Pong et al. 2005; Ream and Palardy 2008; Sirvani 2007) and reduces the likelihood of dropping out of school (Carpenter and Ramirez 2007; McNeal 1999). Parental involvement has also been found to improve academic self-confidence (Gonzalez-Pienda et al. 2002) post secondary enrollment (Song and Glick 2004) and post-educational attainment (Thompson et al. 2006).

Although the empirical evidence generally supports the position that parental involvement improves a variety of educational outcomes, there is growing evidence to suggest that the dimensions of PI exert differential effects on student academic achievement. Some studies have found that parent-child discussions pertaining to a variety of educational matters (secondary and post-secondary) exert the strongest direct effect on student academic achievement, even on standardized test scores (Pong et al. 2005; Ream and Palardy 2008; Song and Glick 2004; Thompson et al. 2006), while other studies suggest parental educational aspirations and expectations may be one of the most important predictors of student academic achievement and postsecondary educational attainment (Fan 2001; Singh et al. 1995; Thompson et al. 2006; Yan and Lin 2005).

Although the empirical evidence is limited on the benefits that accrue to African Americans and other racial-ethnic minority students, the extant research suggests that the academic benefits of PI observed for majority students also accrue to students from minority populations (Carpenter and Ramirez 2007; Fan 2001; Jeynes 2003; Pong et al. 2005; Song and Glick 2004; Yan and Lin 2005).

School-Based Athletic Participation and Academic Outcomes

Despite the mounting empirical evidence that athletic involvement is positively associated with a variety of pro-academic outcomes, the scholarly debate wages on in efforts to determine if school-sponsored athletics detract from the overall academic mission of schools. Most empirical investigations report significant positive associations between sport involvement and a variety of pro-academic and achievement outcomes. Athletic involvement has been found to be positively associated with curriculum enrollment aspirations (Hawkins and Mulkey 2005; Videon 2002); plans to enroll in college (Hawkins and Mulkey 2005); educational aspirations or expectations (Guest and Schneider 2003; Darling 2005; Videon 2002), attitudes toward school (Rees and Howell 1990; Darling, Caldwell, and Smith 2005), and academic self-concept and academic self-confidence (Fejgin 1994; Jordan 1999; Marsh 1993). Athletic involvement has also been found to reduce the likelihood of dropping out of school (Mahoney and Cairns 1997; McNeal 1995).

Positive associations can also be found rather consistently in the literature between school-based sport participation and academic achievement (Broh 2002; Darling 2005; Darling et al. 2005; Eccles and Barber 1999; Jordan 1999; Guest and Schneider 2003; Marsh and Kleitman 2003; Videon 2002) and between athletic participation and measures of social mobility (Barber, Eccles, and Stone 2001; Barron, Ewing, and Waddell 2000; Leeds, Miller, and Stull 2007). Thus, when reviewing the empirical evidence, it becomes quite clear that consistent associations between school-based athletic involvement and pro-social, pro-academic youth development characterize the current body of knowledge.

Earlier empirical investigations found overwhelming support for theoretical propositions that high school athletics enhance rather than deter student athletes from academic pursuits (e.g., Braddock 1981; Hanks and Eckland 1976; Picou 1978). These pioneering studies in the field, however, were plagued with several methodological issues (with a few

exceptions) including: (1) the use of small, non-random samples, (2) the use of regional samples, (3) investigations conducted primarily on white male samples, (4) the use of cross-sectional research designs, and (5) failure to address selection bias. A few of these early works attempted to eliminate, at least in part, some of the methodological limitations of their contemporaries using large, nationally representative data sponsored by the National Center for Education Statistics (Braddock 1981).

The 1990's ushered in a new wave of empirical investigations using nationally, representative samples (e.g. Braddock, Hawkins, Royster, and Winfield 1991; Hawkins, Royster, and Braddock 1992; McNeal 1995) and longitudinal research designs (e.g., Fejgin 1994; Hanson and Kraus 1998 1999; Marsh 1993). Like the studies conducted in the 1970's and 1980's, these more recent studies have also generally found positive associations between high school athletics and a variety of educational outcomes (Broh 2002; Marsh and Kleitman 2003; Videon 2002) and some have even found that positive benefits accrue to all student athletes regardless of race or ethnicity (Fejgin 1994; Marsh 1993; McNeal 1995; Jordan 1999). However, some of these current studies have found evidence to suggest that positive benefits (particularly improved standardized test scores) may not accrue equally across race/ethnic and gender groups (Eitle and Eitle 2002; Hanson and Kraus 1998 1999; Sabo, Melnick, and Vanfossen 1993).

Although not completely congruent, many of the newer studies (e.g., Broh 2002; Eitle and Eitle 2002; Jordan 1999; Marsh and Kleitman 2003) address the issue of selectivity by including controls for factors known to influence socialization in to sport, many of which also contribute to student academic success. In other words, without such controls, it is possible to conclude that it is not sport, *per se*, that benefits student athletes, but pre-existing differences between the two groups. The use of statistical controls and longitudinal designs address this methodological limitation that characterizes much of the earlier empirical investigations in the field.

Sport as a Potential Domain for Parental Educational Involvement

Although the potential of school-sponsored athletic participation as a domain in which to foster increased parental involvement has generally been neglected in the research literature, the few empirical investigations conducted along this area of scientific inquiry suggest that school-based sport participation may be an underutilized resource in the quest for innovative tools to involve parents in their children's schooling experiences

(Broh 2002; O’Bryan 2000; O’Bryan, Braddock, and Dawkins 2006). For example, using data from NELS: 88, O’Bryan (2000) found significant positive relationships between school-based athletic participation and high levels of parental involvement among a nationally representative sample of high school seniors. Parental involvement was measured as high levels of home discussions around educational matters and high levels of parent-school communication (both parent-initiated and school-initiated). Positive, significant relationships were generally found between varsity sport participation and high levels of both measures of parent-school communication and the home discussion dimension. O’Bryan, Braddock, and Dawkins (2006) later examined the relationship between school-based varsity sport participation and high levels of parental involvement among African American high school seniors and found similar patterns.

The results of these studies suggest that varsity sport participation has the potential of fostering high levels of parental involvement and that parents can continue to play prominent roles in the educational lives of high school students (even seniors). Drawing upon the review of literature, the purpose of the current study is to develop and empirically test a conceptual model to assess the impact of school-based varsity sport and parental involvement, along with other known correlates, on student academic success.

Methods

Data Source

Data for this study are drawn from the Education Longitudinal Study of 2002 (ELS:2002), the fourth in a series of nationally representative, longitudinal studies of high school students conducted by the U.S. Department of Education’s National Center for Education Statistics (NCES) of the Institute of Education Sciences (IES). Like its predecessors, ELS: 2002 is particularly rich in its coverage of items pertaining to school-sponsored extracurricular activities and parental involvement. The base-year survey was conducted in the spring of the 2001-2002 school year and employed a two-stage sample selection procedure. A national probability sample of 1,221 eligible schools was selected from a population of 27,000 schools with 10th graders. Of the eligible public, Catholic, and other private high schools, 752 participated, resulting in a 68% weighted response rate. High school sophomores were then randomly sampled from the enrollment lists provided by their high schools. Of the 17,591 eligible 10th graders, 15,362 completed surveys (87.3% weighted response

rate). The first follow-up was conducted in 2004 on those students who completed surveys in the base-year and were attending the same high school, in addition to a freshened sample of seniors within those schools. Parents, teachers, school administrators, and library media specialists were also surveyed. Although the second follow-up was conducted in 2006, to date it has not been made available for public use.

Sample

In the present study, we used a sub-sample of African-American and white male students who were drawn from the larger ELS study and who participated at the base-year (2002) and first follow-up (2004) data collection waves. Since public schools are not as autonomous as private schools, activities that are considered outside of the curriculum (extracurricular activities and sports) are more likely to be targeted for elimination in public schools. Because of the potential policy implications, public high schools are the focus of this study.

Study Variables

Athletic Participation: Athletic participation is a dichotomous variable of any varsity sport involvement (individual or team) in the 10th grade, excluding cheerleading.

Parental Involvement: For purposes of this study, the parental involvement measure is operationalized along three of the four dimensions of Ho Sui-Chu and Willms' (1996) model of parental involvement (home discussions, school communication, and school participation). All items were taken from parent questionnaire data (base-year). Prior to the construction of each PI, factor analyses (principal component analysis with a varimax rotation) were conducted. Items that did not load or that loaded equally on more than one factor were not included in the composite. The *home discussion dimension* is represented by a 4-item composite index that measures whether students discussed selecting high school courses, plans for college entrance exams, applying to college after high school, and what jobs to apply for after high school with their parents. Values for each item ranged from (1 = never, 2 = sometimes, and 3 = often). Each item was then recoded (0 = never, 1 = sometimes, and 2 = often), and an index of home discussions was constructed with values ranging from 0 (no home discussions regarding school matters) to 8 (high home discussions on all items). Reliability analysis was conducted using Cronbach's alpha (standardized $\alpha = .77$).

The school-communication dimension of parental involvement only considers communication with schools initiated by a parent. *Negative parent-initiated communication* is a 3-item composite index that measures parental contacts with schools regarding their adolescent's poor performance, poor attendance, and problem behavior. The items, initially coded (1 = never, 2 = once or twice, 3 = 3 or 4 times, and 4 = more than 4 times), were recoded (0 = never, 1 = once or twice, 2 = 3 or 4 times, and 3 = more than 4 times). The index ranges from 0 (no parent-initiated communication) to 9 (high parent-initiated communication on all items). The index had a reliability coefficient of (Cronbach's alpha) $\alpha = .69$. *Positive parent-initiated communication* is also a 3-item composite index measuring the level at which parents contacted their teen's school regarding the current school year's program, their teen's course selection, and post-secondary plans. The values for the items were the same as those for the negative parent-initiated items, and were thus, recoded in the same manner. The values for the index range from 0 (no parent-initiated communication) to 9 (high parent-initiated communication with schools on each item). The reliability of this index was also measured using Cronbach's alpha (standardized $\alpha = .75$).

The *school participation/involvement* dimension is a four-item composite index measuring parent involvement at school. Each of the items (PTA membership, attendance at PTA meetings, taking an active part in PTA sponsored activities, and volunteering at schools) are dichotomous, thus the values for the index range from 0 (no participation) to 4 (participation on each item). Cronbach's alpha was also used to assess the reliability of this index (standardized $\alpha = .70$). The final dimension of parental involvement used in the present study is the NCES constructed item measuring *parental educational aspirations*. The values range from 1 (less than high school graduation) to 7 (obtain a PhD, MD, or some other advanced degree).

College-bound Behaviors: The primary dependent variable for the present study is a composite measure of academic achievement and active college-preparatory behaviors. *Academic achievement* is measured using the raw 12th grade standardized math test score. Three measures of positive academic behaviors were constructed that assess 12th grade active college planning and preparedness (took SAT, sought college entrance information and applied to college). The variable *took SAT* was dichotomized from the original NCES variable assessing whether or not the SAT/ACT had been taken, or if plans had been made to take

the college entrance exam (0 = did not take the SAT/ACT, 1 = took the SAT/ACT). The *sought college entrance information* measure is a 13-item index measuring the various sources high school seniors sought, if any, in order to obtain college entrance information. The values for the index range from 0 (no college entrance information sought) to 13 (sought college entrance information from each source or resource). The index had a reliability coefficient (Cronbach's alpha) of (standardized $\alpha = .67$). The *applied to college* variable was dichotomized from the original NCES variable which assessed how many schools the student applied to (0 = did not apply to college/school, 1 = applied to college). Factor analysis (principal component analysis with a varimax rotation) was performed to determine if the academic achievement and active college-preparatory measures were conceptually one construct. Since each measure loaded on one factor, the factor score was saved, resulting in an index of *college-bound behaviors*.

Prior Academic Achievement and Academic Track: Prior academic achievement, 10th grade composite (reading and math) standardized test score, was constructed by NCES. The high school academic track measure was dichotomized from the original self-reported program of study variable (0 = general and vocational, 1 = academic or college prep).

Exogenous Variables

Family SES: NCES constructed composite measure based on five equally standardized components (father's education, mother's education, family income, father's occupation, and mother's occupation).

Family structure: The NCES constructed measure BYFCOMP was recoded to create a dichotomous variable distinguishing single-parent households from other household structures (0 = two-parent, 1 = single-parent). The two-parent reference category is composed of household structures with both parents in the home or households consisting of one-parent and a guardian. All other household structures (two-guardian, guardian-only, etc.) were excluded from these analyses.

Race/ethnicity: (0 = White, 1 = African-American).

Parent gender: For purposes of this study, parent is conceptualized as a biological, adoptive, or stepparent (0 = mothers, 1 = fathers).

Data Analyses

We first provide descriptive information with regard to athletic involvement, parental involvement and our college-bound measure. We then use multivariate analyses to examine the extent to which previous involvement in high school varsity sports and previous parental involvement affects college-bound behaviors. Specifically, our proposed conceptual model (Figure 1) is empirically tested with path analysis via multiple regression analysis (standardized beta coefficients) and structural equations models, which allow us to examine the direct, indirect and total effects of the variables in the causal model.

Results

Table 1 presents the intercorrelations for the male sub-sample. School-based varsity sport is positively and significantly associated with college-bound behaviors ($r = .16$). Additionally, each of the parental involvement measures is significantly associated with college-bound behaviors: parental aspirations ($r = .36$), home discussions ($r = .18$), positive parent-initiated school communication ($r = .07$), negative parent-initiated school communication ($r = -.21$), and school participation ($r = .16$).

Table 2 presents the results of the regression analyses of the predetermined model variables on our five measures of parental involvement. Varsity sport participation exerts significant direct effects (positive) on parental school involvement ($\beta = .092$), above and beyond the effects of the other model variables (including family SES, standardized test score, and college-prep academic track). In fact, family SES ($\beta = .219$) is the only predictor in our model that exerts a stronger direct effect on parental school involvement than varsity sport participation for males. These results lend support to the position that school-based athletic involvement increases social capital by connecting parents to their adolescents' schools. With regard to the differential effects of parent and student gender, these results reveal that mothers are significantly more involved than fathers with their sons: home discussions ($\beta = -.071$) and negative school communication ($\beta = -.052$). Additionally, African American parents are significantly more involved on each of the PI measures than white parents are.

Table 3 presents the results of regression analyses of the predetermined variables on the college-bound behaviors for male high school seniors. Varsity sport participation is entered into the regression equation at step 3 and exerts a significant direct effect ($\beta = .104$) on the college-bound behaviors of males. This significant relationship holds ($\beta = .094$), slightly

reduced in magnitude, when the PI measures were entered into the equation at the final stage of the analysis. All of the parental involvement measures exert significant direct effects, and race retains its significant (positive) direct effect, on the primary dependent variable. Thus, school-based varsity sport, parental involvement, and race are independently important determinants of college-bound behaviors for male high school students, above and beyond the effects of family SES, single-parent household structure, standardized test score, and high school academic track. Among the parental involvement measures, negative parent-initiated communication with schools is the strongest predictor of college-bound behaviors for males ($\beta = -.148$), followed by parental aspirations ($\beta = .115$), while parent-child at-home discussions around educational matters ($\beta = .040$) exerts the smallest direct effect.

Table 4 presents the direct, indirect, and total effects of the predetermined variables on the college-bound behaviors of male high school seniors. The total causal effect of varsity sport participation ($\beta = .110$) on college-bound behaviors is largely direct ($\beta = .094$), accounting for slightly more than 85% of the total effect. The remaining portion of the total effect of varsity sport that is mediated through parental involvement is small ($\beta = .016$) – operating primarily through negative school communication initiated by parents ($\beta = .007$) and school participation ($\beta = .005$), see Table 5. The total effect of race ($\beta = -.061$) is primarily indirect ($\beta = -.116$), mediated overwhelmingly through standardized test scores ($\beta = -.152$), with a small portion of the effect ($\beta = .033$) mediated through parental aspirations (Table 5).

Discussion and Conclusions

In this study, a model was developed to assess the effect of school-based athletic participation and parental involvement on academic outcomes. The primary dependent variable of interest, college-bound behaviors, is a composite measure that encapsulates academic achievement (12th grade math standardized test score) and active college-preparedness – whether the student took the SAT/ACT, sought college entrance information from a variety of sources, and applied to college. The model was tested using recent, nationally representative data, a panel sample of U.S. high school male students attending public schools, and a longitudinal research design. Since the model incorporates known determinants of athletic involvement (which the research literature indicate are also predictors of parental involvement and academic achievement), selection bias was also addressed.

The findings of this study indicate that parental involvement is still meaningful for older adolescents and that school-sponsored athletics in particular may be an important context in which to facilitate the production of PI. Although varsity sport was generally correlated with some of the parental involvement measures (home discussions, parent-initiated school communication regarding negative schooling matters, and school participation), athletic involvement was shown to be a significant, independent predictor (above and beyond the effects of more traditional determinants) of parental involvement in the school sphere. Moreover, varsity sport proved to be one of the strongest predictors of parental school involvement in the model. Thus, consistent with the rare studies on this topic (Broh 2002; O'Bryan 2000; O'Bryan et al. 2006) athletic involvement resulted in the formation of social capital, specifically within schools. Parents of student athletes participating in school-sponsored varsity sports were significantly more involved in their male adolescents' high schools as a direct result of their athletic involvement. Additionally, contrary to the extant research literature, African American parents were significantly more likely to be involved with their sons (or their sons' schools) than white parents on each of our PI measures. African American males were also significantly more likely to engage in college-bound behaviors in their senior year of high school than white males.

The findings of the present study also indicate that the involvement of parents in the schooling matters of their high school children translates into positive educational outcomes. Specifically, each of the PI measures examined was academically enriching for male high school seniors, suggesting that past parental involvement may be just as beneficial for older adolescents as current parental involvement. Since prior academic achievement and family SES have been identified by some studies as the strongest predictors of academic achievement (Wu and Qi 2006), the fact that all of our PI measures were significant independent determinants of the college-bound behaviors of male high school seniors is important.

The findings of this study also underscore the importance of school-based varsity sport participation in enhancing youth developmental outcomes. Varsity sport participation was shown to be a significant (positive) independent predictor of the college-bound behaviors of males attending public high schools in the U.S. Thus, male student athletes were significantly more likely to engage in college-bound behaviors in their senior year of high school if they were involved in school-based varsity

sport their sophomore year, above and beyond the effects of traditional determinants of academic success. Despite the fact that significantly more students attending private high schools engage in athletics compared to public high school students (Ingles, Burns, Chen, Cataldi, and Charleston 2005), the findings of this study highlight the educative value of school-sponsored varsity sports in the secondary public school system, where athletics (and other activities perceived as extra-curricular) are most vulnerable to budget cuts.

Although the current study contributes to the growing body of empirical evidence in several meaningful ways, there were limitations. First, sport participation is an aggregate of any varsity sport in the 10th grade. There is evidence to suggest that the positive benefits that accrue to student athletes may vary by the type of sport (Eitle and Eitle 2002). Secondly, this study does not examine participation in extracurricular activities, nor does it tease out the possibility of participation in extracurricular activities from the sport measure. It was not the intent of this study to determine if sport exerts a stronger effect than non-sport extracurricular involvement; therefore, this limitation does not minimize the findings of the current study. Future studies however should include extracurricular activities in order to model the unique contributions of sport (by activity) and extracurricular activities (by activity type).

A third limitation of this study is the measurement of the primary dependent variable of interest (college-bound behaviors). Although the indices used to construct the composite were identified to be one construct through factor analysis, several indices were combined to construct the measure. Additionally, the academic achievement measure (math standardized test scores) could be masking (reducing) the overall effect of varsity sport on the college-bound measure. In the future, this measure should be disaggregated in order to examine academic achievement and college-preparatory behaviors separately.

Despite these limitations, the results of the current study suggest varsity sport participation, a resource that already exists within schools, may be an innovative resource to increase parental involvement and improve academic outcomes for youth. Levels of parental involvement decrease as children progress through the educational system (Herrold and O'Donnell 2008), particularly among older adolescents. However, these findings suggest that prior parental involvement (in this case during the sophomore

year) may be just as meaningful as current involvement in transmitting positive educational benefits to high school students.

Scholars, educators, school reformists, and even high school students not involved in school-sponsored athletics, continue to debate the educative benefits of athletic involvement despite fairly consistent empirical evidence. The findings of this study support the extant research literature that school-based varsity sport participation does not detract from, but indeed enhances, the academic pursuits (in the form of college-bound behaviors) of high school male seniors. Although we are facing one of the worst economic crises the United States has witnessed in decades, this study highlights the importance of federal, state and local governments seriously reconsidering plans of eliminating varsity sport programs. In lieu of systematic program cutbacks, this study suggests the need for creative fund raising and allocation measures so that these vital programs will continue to be fiscally supported. It is our contention that once these activities, which are already a component of the total school experience, are no longer conceptualized as a component of the *extra-curriculum*, the necessary measures to ensure that these programs remain a part of the *curriculum* will be taken. Until then, school-based sport, despite its empirical track record, will continue to be perceived as extra, and thus expendable, when budget constraints arise.

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Table 1
Correlation Matrix and Descriptive Statistics (Males; N = 1,743)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Family SES													
(2) Single-Parent Household	-.22 ^c												
(3) Race (African American=1)	-.24 ^c	.23 ^c											
(4) Parent Gender (Fathers=1)	.14 ^c	-.03	-.05 ^a										
(5) Standardized Test Score	.39 ^c	-.16 ^c	-.31	.04									
(6) H.S Track (College Prep=1)	.14 ^c	-.02	-.01	-.01	.24 ^c								
(7) Varsity Sport	.08 ^c	-.05	-.03	-.09 ^c	.03	.15 ^c							
(8) Parental Aspirations	.25 ^c	-.05	.14 ^c	.08 ^c	.30 ^c	.23 ^c	.01						
(9) Home Discussions	.13 ^c	-.04	.02	-.04	.12 ^c	.13 ^c	.04	.23 ^c					
(10) Positive School Contacts	.13 ^c	-.07 ^b	.04	-.03	-.05 ^a	.01	-.02	.07 ^b	.19 ^c				
(11) Negative School Contacts	.01	.06 ^b	.14 ^c	-.06 ^b	-.13 ^c	-.12 ^c	-.07 ^b	-.11 ^c	.04	.28 ^c			
(12) School Participation	.20 ^c	-.10 ^c	.02	-.05	.02	.06 ^b	.12 ^c	.15 ^c	.16 ^c	.26 ^c	.02		
(13) College-Bound Behaviors	.39 ^c	-.19 ^c	-.13 ^c	.02	.56 ^c	.31 ^c	.16 ^c	.36 ^c	.18 ^c	.07 ^b	-.21 ^c	.16 ^c	
Mean	.14	.20	.17	.19	53.35	.55	.62	5.35	5.05	1.05	.65	1.16	.03
S.D.	.62	.40	.38	.39	10.02	.50	.49	1.19	2.18	1.44	1.17	1.32	.99

^a indicates p < .05; ^b indicates p < .01; ^c indicates p < .001

Table 2
Results of the Regression Analyses on Parental Involvement Measures (Standardized Regression Coefficients) for Male High School Students Attending U.S. Public Schools

	(1)	(2)	(3)	(4)	(5)
Family SES	.245***	.142***	.176***	.064***	.219***
Single-Parent	-.002	-.044*	-.059**	.009	-.071***
Race (African American=1)	.283***	.078***	.046*	.062***	.087***
Parent Gender (Fathers=1)	-.019	-.071***	-.009	-.052***	-.004
Standardized Test Score	.251***	.037	-.113***	-.213***	-.025
H.S. Track (College Prep=1)	.107***	.100***	.024	-.097***	.078***
Varsity Sport	.018	.020	.011	.022	.092***
R²	.214	.051	.036	.071	.080

* p < .05; ** p < .01; *** p < .001

NOTE: Parental Aspirations = (1); Home Discussions = (2); Positive Parent-Initiated School Communication (Contacts) = (3); Negative Parent-Initiated School Communication = (4); School Participation/Involvement = (5)

Table 3
Results of the Regression Analyses on College-Bound Behaviors among Male High School Students Attending Public Schools (Standardized Regression Coefficients), N=1,743

	Step 1	Step 2	Step 3	Step 4
Family SES	.370***	.195***	.187***	.152***
Single-Parent	-.099***	-.086***	-.082***	-.065***
Race (African-American=1)	-.020	.078***	.080***	.055**
Parent Gender (Fathers=1)	-.042	-.027	-.016	-.024
Standardized Test Score		.452***	.457***	.419***
H.S. Track (Academic=1)		.170***	.155***	.117***
Varsity Sport			.104***	.094***
Parental Aspirations				.115***
Home Discussions				.040*
Positive School Contacts				.075***
Negative School Contacts				-.148***
School Participation				.055**
R²	.17	.39	.40	.44

p < .05; ** p < .01; *** p < .001

Table 4
Total, Direct and Indirect Effects of Predetermined Variables on College-Bound Behaviors among Male High School Students Attending Public Schools

	Total Effect	Direct Effect	Total Indirect Effect	Total Association
Family SES	.436	.152	.284	.391
Single-Parent	-.142	-.065	-.077	-.186
Race (African-American=1)	-.061	.055	-.116	-.131
Parent Gender (Fathers=1)	0	-.024	.024	.015
Standardized Test Score	.485	.419	.066	.557
H.S. Track (Academic=1)	.160	.117	.043	.308
Varsity Sport	.110	.094	.016	.155
Parental Aspirations	.115	.115	_____	.356
Home Discussions	.040	.040	_____	.177
Positive School Contacts	.075	.075	_____	.069
Negative School Contacts	-.148	-.148	_____	-.206
School Participation	.055	.055	_____	.164

NOTE: Direct effects are the standardized regression coefficients. Indirect effects are computed from the appropriate combinations of paths in the structural equations solutions for the model. Total effects are the sum of the direct and indirect effects for each predetermined variable in the model.

Table 5
Indirect Effects of Predetermined Variables on College-Bound Behaviors through Standardized Test Score, H.S. Track, Varsity Sport and Parental Involvement (Males)

	Indirect Effect via							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Family SES	.192	.026	.017	.028	.006	.013	-.010	.012
Single-Parent Household	-.065	-.002	-.003	-.000	-.002	-.004	-.001	-.004
Race (African-American=1)	-.152	-.000	-.000	.033	.003	.004	-.009	.005
Parent Gender (Fathers=1)	.023	.006	-.007	-.002	-.003	-.001	.008	-.000
Standardized Test Score	_____	_____	.003	.033	.003	-.008	.033	.002
H.S. Track (Academic=1)	_____	_____	.016	.019	.004	-.001	.001	.004
Varsity Sport	_____	_____	_____	.002	.001	.001	.007	.005

NOTE: Standardized Test Score = (1); High School Track = (2); Varsity Sport = (3); Parental Aspirations = (4); Home Discussions = (5); Positive School Contacts = (6); Negative School Contacts = (7); and School Participation = (8).

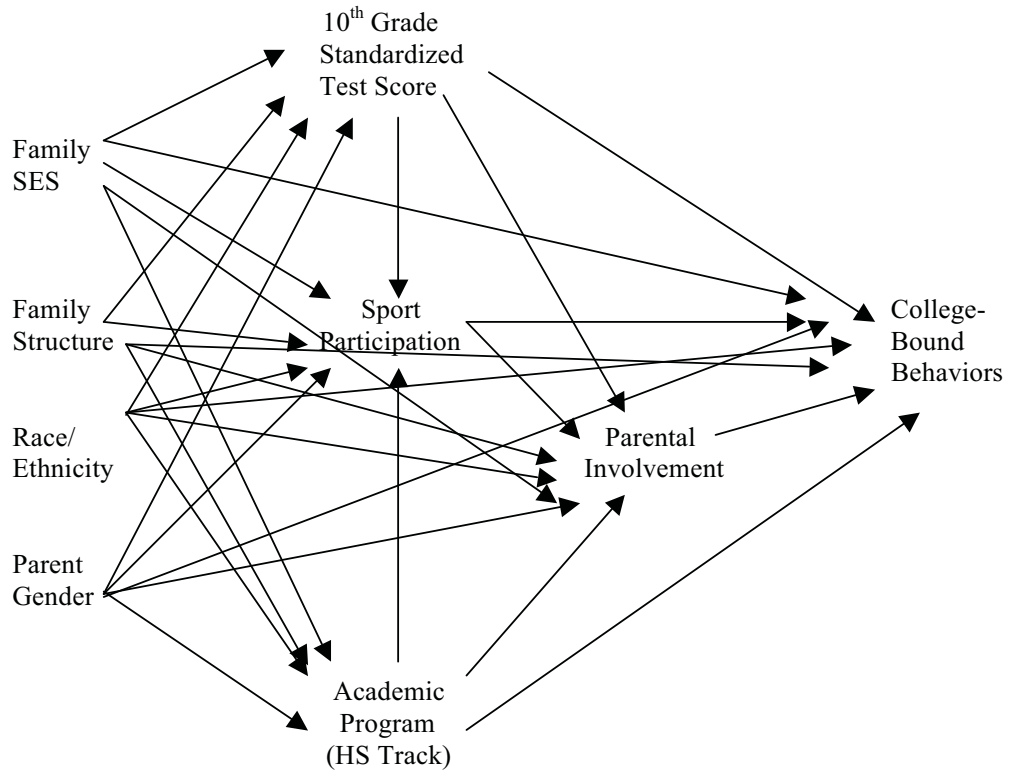


Figure 1: A Conceptual Model of College-Bound Behaviors

School Sports and Adolescent Steroid Use: National Trends and Race-Ethnic Variations

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Abstract

“The illegal use of steroids, human growth hormone, and other performance enhancing substances by well known athletes may cause serious harm to the user. In addition, their use encourages young people to use them... Every American, not just baseball fans, ought to be shocked by that disturbing truth.” (U.S. Senator George J. Mitchell 2008)

In the United States, it has been reported that 4% to 12% of male adolescents and 0.5% to 2.9% of female adolescents have used anabolic steroids to enhance sports performance or favorably alter body size. Although medical, legal, and ethical issues related to the nonmedical use of anabolic steroids have been widely publicized, a growing number of adolescents appear to be using them for nonmedical purposes. This study examines the relationship between sports participation and steroid use among Black and White high school males using data from the Monitoring the Future Surveys: 1991-2007. Our specific aims were threefold: (1) to examine whether trends in high school male adolescent steroid usage was associated with the “steroids era” in major league baseball; (2) to compare Black-White adolescent usage patterns, and (3) to determine if participation in school sports served as a protective or risk factor for steroid use. Results indicate that adolescent male steroid use increased during the “steroids era”, White males reported higher prevalence of steroid use than Black males, and sport participation served as a protective factor, but only for Black males.

Introduction

It has been suggested that athletes used various herbs and foods to improve their performance as far back as the original Olympic Games in ancient Greece (Francis 2000). For example, a winner in the 480 B.C. Olympic is said to have eaten only for 10 months prior to the Games. In addition, early attempts to increase Testosterone were documented as early as 776 BC for Olympic athletes' who ate sheep's testicles, which they knew to be a source of Testosterone production (Francis 2000). In the era of modern sports, athletes have used anabolic steroids since the 1950s in the hope of improving athletic performance (Bergman and Leach 1985). Anabolic steroids are synthetic derivatives of testosterone typically taken to increase muscle mass and strength. Contemporary anabolic steroid use was initially popularized by weight lifters and bodybuilders; however, they are now being used by male and female power athletes, endurance athletes, as well as nonathletes (Yesalis, Kennedy, Kopstein, and Bahrke 1993). More than 1 million people in the United States are estimated to have ever used anabolic steroids, with approximately 48% of lifetime anabolic-steroid users being 25 years of age or younger (Taylor and Black 1987; Yesalis et al 1993). Adolescents and young adults ages 25 and younger make up 54% of the population who reported using anabolic steroids during the previous year (Yesalis, et al 1993). Steroid use has become a significant concern in both intercollegiate and interscholastic athletics. However, prevalence estimates vary considerably. For example, the NCAA surveys collegiate athletes every four years regarding use and abuse habits of various drugs and their self-report rate for anabolic steroids has been about 1% over the past 12 years (Green 2007). Other estimates of the extent of steroid use among intercollegiate athletic men range from 2% to 20% (Pope, Katz, and Champoux 1988). According to a 2006 NCAA five-year report, there was a sharp decline in the number of college athletes who tested positive for anabolic steroids. Among a total of 10,094 athletes who were tested in the 2004-5 academic year, 49 athletes tested positive for steroids compared with 92 athletes five years earlier.

Steroid use among adolescents has also become an increasing concern. According to a survey by the Center for Disease Control and Prevention, steroid use among high school students more than doubled between 1991 and 2003, but declined somewhat between 2003 and 2005 (Eaton, Kahn, Kinchen, et al 2006). Slightly over 6% of 15,000 students surveyed admitted trying steroid pills or injections. It has been reported that 4% to 12% of male adolescents and 0.5% to 2.9% of female adolescents have

used anabolic steroids either to enhance sports performance, or to alter favorably body size (Bahrke et al. 1998; Buckley, et al 1988). Given that 57% of all high school students play on formal sports teams, the use of both illicit and legal performance enhancing drugs is an important policy concern. Nevertheless, it is important to note that up to one third of high school students who use anabolic steroids are nonathletes who use steroids to improve their appearance (Buckley, et al 1988).

Researchers have suggested that some students begin using anabolic steroids even before they enter high school. For example, Tanner, Miller and Alongi (1995) report that 54% of adolescent Anabolic steroids users started at 14 years of age. Nutter (1997) also found that 3% of students between 12 and 16 years of age had used or were currently using anabolic steroids. Nevertheless, obtaining accurate estimates of the prevalence of adolescent steroid abuse is difficult because many large-scale surveys that measure drug abuse, often do not gather information on steroid use. Moreover, according to a survey of athletic directors by the National Federation of State High Schools, only a small fraction of the nation's high schools test for steroids. For example, data from the National Federation of State High School Associations indicate that only 13% of high schools perform drug testing on athletes. However, only 29% of those schools reported testing for anabolic steroids, whereas the rest tested only for illicit substances such as marijuana, opiates, and alcohol (National Federation of State High School Associations 2006).

Background

During the 1930s, scientists discovered that anabolic steroids could facilitate the growth of skeletal muscle in laboratory animals, which led to abuse of the compounds first by bodybuilders and weightlifters and then by athletes in other sports (Bergman and Leach 1985). However, research also suggests that steroid use may also be associated with adverse effects. For example, steroid use has been linked to increased risk of coronary heart disease, liver disease, testicular atrophy, prostate cancer, and breast enlargement in men and decrease in women (Bahrke et al. 1998). Additional potential psychological side effects include decreased libido, increased aggression including homicide and suicide, affective and psychotic disorders (Pope et al. 2000; Pope and Katz 1988; Riem and Hursey 1995). It is also believed to be addictive in some users (Brower et al. 1991). Because steroid users often use other illicit drugs there is increased risk of transmitting or contracting the human immunodeficiency virus the risk

for spread of hepatitis and HIV to originally low risk populations through sharing needles in steroid injection (DuRant et al. 1993a). Steroid use in adolescence may cause premature closure of the growth plates over the bones resulting in permanent short stature (Hallagan et al. 1989). Anabolic steroids use during adolescence poses additional concerns because the use of these drugs during this developmental period may result in premature closure of the growth plates over the bones resulting in permanent short stature (Hallagan et al. 1989). For all of these reasons, many health professional organizations including the American Academy of Pediatrics, the American College of Sports Medicine, and the National Strength and Conditioning Association have denounced the nonmedical use of anabolic steroids. Because anabolic steroid use is a significant health concern it is important to identify risk and protective factors for its use in adolescence.

In general, studies have indicated that substance abuse among school-age youth is a significant correlate of academic failure, absenteeism, dropout rate, and delinquency (Kandel, Simcha-Fagan, and Davies 1986; Newcomb, Maddahian, and Bentler 1986; Paulson, Coombs, and Richardson 1990; Swadi 1992). Adolescent substance use has also been associated with engaging in other risky behaviors. For example, YRBSS data from 1999 indicate that youth who reported a past or recently active history of smoking marijuana are generally more likely to have reported engaging in other recent risk-related behaviors, such as fighting, carrying a weapon, and not wearing a seat belt.

Similarly, steroid use has also been associated with other risky behaviors (Yesalis, et al 1993; Torabi and Bailey 1993). DuRant et al (1994) reported that anabolic-steroid use by ninth grade students was associated with the use of cocaine, injected drugs, alcohol, marijuana, cigarettes, and smokeless tobacco. Among male students, DuRant, Escobedo, and Heath 1995) found that anabolic-steroid use was associated with injected drug use, use of drugs other than steroids, engaging in strength-training exercises, and alcohol use, but not with participation in school sponsored sports. Research suggests that some users might turn to other drugs to alleviate some of the negative effects of anabolic steroids. For example, a study of 227 men admitted in 1999 to a private treatment center for addiction to heroin or other opiates found that 9.3 percent had abused anabolic steroids before trying any other illicit drug. Of these 9.3 percent, 86 percent first used opiates to counteract insomnia and irritability resulting from anabolic steroids ().

It has been suggested that participation in school sports can reduce the risks of young people's involvement in problem behavior (Miller, Sabo, Farrell, Barnes, and Melnick (1998). However, it is unclear whether participation in school-based sports serves as a risk or protection against involvement in drugs. Research on the relationship between participation in interscholastic athletics and drug use has produced inconsistent findings. Some studies indicate that athletes are less likely to use drugs than nonathletes (Escobedo, Marcus, Holtzman, and Giovino 1993; Hayes and Tevis 1977; Shields 1995; Tec 1972), while other studies reveal either greater drug use by athletes or no difference between sports participants and non-participants (Carr 1990; McGraw, Smith, Schensul, and Carrillo 1991). These inconsistent findings are due in part to substantial differences in specific substances studied, as well as different the different populations examined. For example, Rainey (1996) examined patterns of tobacco and alcohol use among athletic and non-athletic youth and found that participation on school athletic teams correlated with less cigarette smoking but more binge drinking, while other research reports lower levels of alcohol (Hayes and Tevis 1977) and marijuana (Tec 1972) use by athletes. There is also evidence of greater involvement in smokeless tobacco and cigarettes by youth who participate in athletics (McGraw, Smith, Schensul, and Carrillo 1991). In addition, variations in adolescent drug-use patterns by ethnicity, gender, geographic location, and other factors make it difficult to make broad and generalized statements about the effect of sports participation on drug use. For example, males tend to use most substances more frequently than females, Blacks typically report less use than Whites and other minority youth, and urban-rural variations have been found (Dawkins 1986 1996; Johnson and Marcos 1988; Maddahian, Newcomb, and Bentler 1986; Warheit, Biafora, Zimmerman, Gil, Vega, and Apospori 1995). The pattern for steroid use follows that seen for other drugs, with both Whites and Hispanics sharing higher prevalence values (e.g., lifetime prevalence of 2.8 percent to 3.4 percent among 12th graders). Blacks are substantially less likely to have started to use steroids (1.3 percent by 12th grade). The association between sport participation and substance use may also vary by type of sport. Research based on large national data sets have been generally unable to directly address this issue because information on type of sport is often lacking in studies such as Monitoring the Future and the Youth Risk Behavior Surveillance Surveys. However, there is some evidence that participation in specific sports, such as football and wrestling, is associated with higher prevalence of anabolic-steroid use (Terney and McLain 1990; DuRant, Ashworth, Newman, and Rickert 1994).

Reflecting on sports' protective potential against risky behavior, Miller, Sabo, Farrell, Barnes, and Melnick (1998) suggest four benefits to participating in school sports: (1) enables adolescents to be constructively engaged in activities, which provide acceptable alternatives to risky behavior; (2) fills time slots with regularly scheduled activities; (3) leads to affective attachment to coaches and teammates which helps to suppress involvement in many deviant activities; and (4) provides an incentive for avoiding behaviors that may be potentially threatening to their continued participation. Therefore, notwithstanding the powerful influence of known predictors of drug use in adolescence -- including early substance use initiation, family members' drug use and peer influence -- participation in school-based sports should contribute to the protective resources that reduce adolescent drug use. However, it is also possible that sports participation will promote drug use, especially for substances that are associated with particular sports (e.g., smokeless tobacco and, more recently, steroids in baseball), through the negative role modeling behavior of influential athletes, or via other mechanisms.

A major purpose of the present study is to address the question of whether participation in school-based sports served as a "risk" or "protective" factor for steroid use among middle- and high school males. We examine the relationship between sports participation and steroid use among Black and White high school males using data from the Monitoring the Future Surveys: 1991-2007. Our specific aims are threefold: (1) to examine whether trends in high school male adolescent steroid usage was associated with the steroids era in major league baseball; (2) to compare Black-White adolescent usage patterns, and (3) to determine if participation in school sports served as a protective or risk factor for steroid use.

Methods

Data for this study are from the Monitoring the Future Surveys: 1991-2007 (MTF). The MTF Study, funded by NIDA, is a nationally representative cross-sectional sample survey of school attending youth in the United States, administered to 8th-, 10th-, and 12th-graders, with longitudinal follow-up of subsamples as these students progress into the college years and young adulthood. MTF is conducted by the University of Michigan's Institute for Social Research. One of the major purposes of the survey is to develop an accurate picture of drug use and related attitudes and behaviors among youth (Johnston and O'Malley 1997; Johnston et al. 2001). Data presented in this report are from the MTF cross sectional

surveys only. Since 1975, the Monitoring the Future (MTF) survey has been administered annually to study the extent of and beliefs about drug use among 12th-graders. The survey was expanded in 1991 to include 8th- and 10th-graders. The goal of the survey is to collect data on daily, past-month, past-year, and lifetime drug use among students in these grade levels. Because of our focus on specific long-term trends in adolescent steroid use, our analyses is restricted to the 8th and 10th grade samples as the 12th grade surveys did not include such measures prior to 1995. For the present study, we group the MTF surveys into three periods in major league baseball: the pre-steroids era (1991-1993), the steroids era (1994-2003), and the post-steroids era (2004-2007). Chi-square statistics are used to compare steroid use rates among sports active and sports inactive, Black and White males across time periods,

Findings

Full Sample: Table 1 reports trends in steroids use among all male 8th and 10th grade students. The data are arrayed to represent the three periods in major league baseball. Steroid usage is reported in three ways: ever used in lifetime; used during past 12 months; and used during the past 30 days. The full male 8th and 10th grade sample is comprised of 212,263 students. Overall, the data show that steroids use among students who are active in sports, as well as their counterparts who are not active in sports, peaked during major league baseball's steroids era (from 1994 to 2003).

Lifetime Steroid Use: The top panel of Table 1 shows that in the pre-steroids era (from 1991 to 1993), only 2.8% male students who were active in sports reported having used steroids in their lifetimes. Among this group, the percentage who reported having used steroids in their lifetimes increased to 3.4% during steroids era. During the post-steroids era in major league baseball (from 2004 to 2007), we see a decline in the percentage male sports active students who reported having used steroids in their lifetimes. Only 2% of male students who were active in sports reported having used steroids during this period. Chi-square test shows that, for the full sample of sports active male 8th and 10th grade students, variations in steroids use are related to baseball's steroid eras, and the differences across eras are statistically significant ($\chi^2=276.07$, $p<.01$). The same pattern is observed among the full sample of male 8th and 10th grade students male students who are not active in sports. In pre-steroid era, 2.1% male students who were inactive in sports reported having used steroids in their lifetime. The percentage increased to 2.9% during the steroids

era, and dropped to 1.7% in post-steroid era. Chi-square test shows that lifetime steroids use among male 8th and 10th grade students who were not involved in sports is also related to baseball's steroid eras, and the differences across eras are statistically significant ($\chi^2=38.20$, $p<.01$).

Steroid Use During Past 12 Months: The middle panel of Table 1 reveals similar results regarding 8th and 10th grade male students' steroid usage in the 12 months prior to the survey. In pre-steroid era, 1.8% male students who were active in sports reported having used steroids during the 12 month period prior to the survey. Among this group of males who were active in sports, steroid use rose to 2.1% during the steroid era, and drops to 1.8% in post-steroid era. Chi-square test shows that, for the full sample of sports active male 8th and 10th grade students, variations in steroids use in the past 12 months are related to baseball's steroid eras, and the differences across eras are statistically significant ($\chi^2=31.50$, $p<.01$). In the pre-steroids era, just 1.0% of male 8th and 10th graders who were not involved in sports, reported having used steroids in the past 12 months. During the steroids era the number increased to 1.6%, and declined slightly to 1.4% in post-steroid era. As was the case for sports active 8th and 10th grade males, steroids use in the past 12 months among males who were not active in sports is also correlated with the steroids era in major league baseball, and the differences across baseball eras are statistically significant ($\chi^2=12.625$, $p<.01$).

Steroid Use During Past 30 Days: As shown in the bottom panel of Table 1, the prevalence rates for steroid use in the last 30 days prior to the survey is similar to that observed for lifetime usage, and usage within the past year. In the pre-steroids era, 0.9% of male 8th and 10th graders who were active in sports reported having used steroids in the 30 days prior to the survey. The number increased to 1.1% during the steroids era, and then remained the same in post-steroid era. Chi-square test shows that the trends in steroids use in the past 30 days is also related to the baseball eras, and the differences across eras are statistically significant ($\chi^2=14.84.50$, $p<.01$). For male students who were inactive in sports, 0.6% reported having used steroids over the past 30 days, in pre-steroid era. The prevalence rate increased to 0.9% in steroid era. However, unlike other groups, the percentage of users among male students who were inactive in sports increased slightly to 1.0% in the post-steroid era. Steroid use, in the past 30 days, among students who were sports inactive is also correlated with the steroids era in major league baseball, and the differences across eras are statistically significant ($\chi^2=6.50$, $p<.05$).

Comparing variations in the steroid use patterns of students who are active in sports and those who are sports inactive *within in each period* we find that among all male students, participation in sports is associated with higher rates of steroid use across different eras. In the pre-steroids era, 8th and 10th male students who are active in sports reported more steroids use than those who are inactive in sports in all three use behavior groups. Specifically, 2.8% male students who were active in sports reported having used steroids in their lifetimes, compared to 2.1% of male 8th and 10th graders who were inactive in sports. The differences between sports active participants and sports inactive participants are statistically significant ($\chi^2=9.92$, $p<.01$). In the steroids era, 3.4% of males who were active in sports reported having used steroids during their lifetimes compared to 2.9% of males who were inactive in sports. The differences between sports active participants and sports inactive participants are statistically significant ($\chi^2=20.70$, $p<.01$). In post-steroid era, 2.0% of male 8th and 10th grade students who were active in sports reported having used steroids in their lifetimes compared to 1.7% of males who were inactive in sports. The differences between sports active participants and sports inactive participants are statistically significant ($\chi^2=2.68$, $p<.1$). Among males in the pre-steroids era who reported having used steroids in the last 12 months, the prevalence rate is 1.8% for those who are active in sports, and 1.0% for those who are not active in sports. This difference is also statistically significant ($\chi^2=18.10$, $p<.01$). In the steroids era, the usage prevalence rate is 2.1% for those who were active in sports, and 1.6% for those who were inactive in sports. These differences are also statistically significant ($\chi^2=27.42$, $p<.01$). In the post-steroid era, the steroid usage prevalence rate was 1.8% for those who are sports active in sports, and 1.4% for those who were sports inactive. Again, the differences are statistically significant ($\chi^2=8.06$, $p<.01$). During the pre-steroids era, the usage prevalence was 0.9% for those who were active in sports, and 0.6% for those who were inactive in sports, among males who reported having used steroids in the last 30 days. This difference is also statistically significant ($\chi^2=5.47$, $p<.05$). In steroids era, the prevalence rate was 1.1% for active sports participants, and 0.9% for those who are inactive in sports. The difference is also statistically significant ($\chi^2=9.58$, $p<.01$). In post-steroids era, the steroid usage rate was 1.1% for those who are active in sports, and 1.0% for those who are inactive in sports, a non-significant difference.

Black Males: Table 2 reports trends in steroids use among Black male 8th and 10th grade students. The data are arrayed to represent the three periods in major league baseball. Steroid usage is reported in three ways: ever used in lifetime; used during past 12 months; and used during the past 30 days. The Black male 8th and 10th grade sample is comprised of 36528 students. The data in Table 2 show that, like males overall, steroids use among both sports active, and sports inactive, Black students peaked during major league baseball's steroids era.

Lifetime Steroid Use: The top panel of Table 2 shows that in the pre-steroids era, only 2.0% of Black male students who were active in sports reported having used steroids in their lifetimes. Among Black males, the percentage who reported having used steroids in their lifetimes increased to 2.4% during the steroids era. During the post-steroids era in major league baseball, we see a decline in the percentage of sports active students who reported having used steroids in their lifetimes. Only 1.8% of Black male students who were active in sports reported having used steroids during this period. Chi-square test shows that among sports active Black male 8th and 10th graders, variations in steroids use are related to baseball's steroid eras, and the differences across eras are statistically significant ($\chi^2=10.87$, $p<.01$). The same pattern is observed among the sample of Black male 8th and 10th grade students who were not active in sports. In the pre-steroids era, 2.1% of Blacks who were inactive in sports reported having used steroids in their lifetimes. Those percentages increased to 2.8% during the steroids era, and dropped to 2.1% in post-steroids era. Chi-square tests show that lifetime steroids use among Black male 8th and 10th grade students who were not involved in sports is unrelated to baseball's steroids eras ($\chi^2=1.89$, ns).

Steroid Use During Past 12 Months: The middle panel of Table 2 reveals similar results regarding 8th and 10th grade Black male students' steroid usage in the 12 months prior to the survey. In pre-steroids era, 1.1% of Black males who were active in sports reported having used steroids during the 12 month period prior to the survey. Among sports active Black males, steroid use rose to 1.4% during the steroids era, and increased slightly to 1.5% in the post-steroids era. In the pre-steroids era, just 1.5% of sports inactive Black male 8th and 10th graders reported having used steroids in the past 12 months. During the steroids era the number increased to 1.7%, and again increased slightly to 1.9% in post-steroid era. Chi-square tests for both sports active ($\chi^2=3.17$, ns) and sports inactive

($\chi^2=.49$, ns) Black male 8th and 10th graders show that steroids use during the 12 month period prior to the survey is unrelated to baseball's steroids eras.

Steroid Use During Past 30 Days: As shown in the bottom panel of Table 2, the prevalence rates for Black male steroid use in the last 30 days prior to the survey is similar to that observed for lifetime usage, and usage within the past year. In the pre-steroids era, 0.6% of Black male 8th and 10th graders who were active in sports reported having used steroids in the 30 days prior to the survey. The number increased to .8% during the steroids era, and again grew slightly to 0.9% in post-steroids era. For Black male students who were inactive in sports, 0.3% reported having used steroids over the past 30 days, in pre-steroids era. The prevalence rate increased to 1.2% in the steroids era and to 1.7% in the post-steroids era. Steroid use, in the past 30 days, among students who were sports inactive is also correlated with the steroids era in major league baseball, and the differences across eras are statistically significant ($\chi^2=5.63$, $p<.1$).

Based on the results in Table 2, it appears that sports participation serves as a protective factor against steroids use among Black male students, across the three eras. Among Black male 8th and 10th graders, students who reported having used steroids in their lifetime, and in the last 12 months, the steroids use prevalence rates for the sports inactive, exceeds the prevalence rates for the sports active, in all three eras. The only exception is the group who reported having used steroids in the last 30 days, in pre-steroids era. In both the steroids era, and post-steroids era, Black male students who were inactive in sports reported higher rates of steroids use. The difference is statistically significant ($\chi^2=4.42$, $p<.05$) in the steroids era and the post-steroids era ($\chi^2=4.22$, $p<.05$).

White Males: Table 3 reports trends in steroids use among White male 8th and 10th grade students. The data are arrayed to represent three periods in major league baseball. Steroid usage is reported in three ways: ever used in lifetime; used during past 12 months; and used during the past 30 days. The White male 8th and 10th grade sample is comprised of 175735 students. The data in Table 3 show that, like Black males, and males overall, steroids use among White sports active, and sports inactive, students peaked during major league baseball's steroids era.

Lifetime Steroid Use: The top panel of Table 3 shows that in the pre-steroids era, only 2.8% of sports active White males reported having used steroids in their lifetimes. Among sports active White males group, the percentage who reported having used steroids in their lifetimes increased to 3.6% during steroids era. During the post-steroids era, we see a decline in the percentage White male sports active students who reported having used steroids in their lifetimes. Only 2% of White male students who were active in sports reported having used steroids during this period. Chi-square test shows that for sports active White male 8th and 10th grade students, variations in steroids use are related to baseball's steroid eras, and the differences across eras are statistically significant ($\chi^2=207.63$, $p<.01$). The same pattern is observed among White male 8th and 10th grade students who were not active in sports. In pre-steroids era, 1.8% of White male students who were inactive in sports reported having used steroids in their lifetimes. The percentage increased to 2.8% during the steroids era, and dropped to 1.7% in post-steroids era. Chi-square tests show that lifetime steroids use among White male 8th and 10th grade students who were not involved in sports is also related to baseball's steroid eras, and the differences across eras are statistically significant ($\chi^2=25.84$, $p<.01$).

Steroid Use During Past 12 Months: The middle panel of Table 3 reveals similar results regarding White 8th and 10th grade male students' steroid usage in the 12 months prior to the survey. In pre-steroids era, 1.8% of White male students who were active in sports reported having used steroids during the 12 month period prior to the survey. Among White males who were active in sports, steroid use rose to 2.3% during the steroids era, and dropped to 1.9% in the post-steroids era. Chi-square test shows that, for sports active White male 8th and 10th grade students, variations in steroids use in the past 12 months are related to baseball's steroid eras, and the differences across eras are statistically significant ($\chi^2=33.00$, $p<.01$). In the pre-steroids era, just .7% of sports inactive White male 8th and 10th graders reported having used steroids in the past 12 months. During the steroids era the number increased to 1.6%, and declined slightly to 1.3% in post-steroids era. Steroids use in the past 12 months among sports inactive White males is also correlated with the steroids era in major league baseball, and the differences across baseball eras are statistically significant ($\chi^2=16.38$, $p<.01$).

Steroid Use During Past 30 Days: As shown in the bottom panel of Table 3, the White male prevalence rates for steroid use in the last 30 days prior to the survey is similar to that observed for lifetime usage, and usage within the past year. In the pre-steroids era, 0.8% of White male 8th and 10th graders who were active in sports reported having used steroids in the 30 days prior to the survey. That number increased to 1.2% during the steroids era, and dropped to 1.1% in post-steroids era. Chi-square test shows that the trends in steroids use in the past 30 days is also related to the baseball eras, and the differences across eras are statistically significant ($\chi^2=22.29$, $p<.01$). For White male students who were inactive in sports, 0.5% reported having used steroids over the past 30 days, in pre-steroid era. The prevalence rate among sports inactive White male students increased to 0.8% in steroids era, and remained the same in post-steroids era. The differences across eras are not statistically significant.

Based on the results in Table 3, it appears that sports participation does *not* serve as a protective factor against steroids use among White male students, across the three eras. Among White male 8th and 10th graders, students who reported having used steroids in their lifetime, in the last 12 months, and in the last 30 days, the steroids use prevalence rates for the sports active, exceeds the prevalence rates for the sports inactive, across all three eras. In the pre-steroids era, 8th and 10th White male students who were active in sports reported greater steroid use than those who were inactive in sports in all three use behavior groups. Specifically, 2.8% of male students who were active in sports reported having used steroids in their lifetimes, compared to 2.1% of male 8th and 10th graders who were inactive in sports. The differences between sports active participants and sports inactive participants are statistically significant ($\chi^2=14.37$, $p<.01$). In the steroids era, 3.6% of males who were active in sports reported having used steroids during their lifetimes compared to 2.7% of males who were inactive in sports. The differences between sports active participants and sports inactive participants are statistically significant ($\chi^2=27.46$, $p<.01$). In post-steroid era, 2.0% of male 8th and 10th grade students who were active in sports reported having used steroids in their lifetimes compared to 1.7% of males who were inactive in sports. The differences between sports active participants and sports inactive participants are statistically significant ($\chi^2=1.81$, $p<.1$). Among males in the pre-steroids era who reported having used steroids in the last 12 months, the prevalence rate is 1.8% for those who are active in sports, and .7% for those who are not active in sports. This difference is also statistically significant ($\chi^2=23.71$,

p<.01). In the steroids era, the usage prevalence rate is 2.3% for those who were active in sports, and 1.6% for those who were inactive in sports. These differences are also statistically significant ($\chi^2=34.37$, p<.01). In the post-steroid era, the steroid usage prevalence rate was 1.8% for those who are sports active in sports, and 1.4% for those who were sports inactive. Again, the differences are statistically significant ($\chi^2=9.52$, p<.01). During the pre-steroids era, the usage prevalence was 0.8% for those who were active in sports, and 0.5% for those who were inactive in sports, among males who reported having used steroids in the last 30 days. This difference is also statistically significant ($\chi^2=4.86$, p<.05). In steroids era, the prevalence rate was 1.2% for active sports participants, and 0.8% for those who are inactive in sports. The difference is also statistically significant ($\chi^2=20.04$, p<.01). In post-steroids era, the steroid usage rate was 1.1% for those who are active in sports, and .8% for those who are inactive in sports, a significant difference ($\chi^2=5.70$, p<.05).

Summary and Discussion

This study examined the relationship between sports participation and steroid use among Black and White high school males using data from the Monitoring the Future Surveys : 1991-2007. Our specific aims were threefold: First, we wanted to examine whether trends in middle and high school male adolescent steroid usage was associated with the “steroids era” in major league baseball. Second, we wanted to compare Black-White adolescent usage patterns. Third, we sought to determine if participation in school sports served as a protective or risk factor for steroid use.

With regard to the question of whether trends in high school male adolescent steroid usage was associated with the “steroids era” in major league baseball, we find quite compelling evidence that it was. Specifically, we found that self-reported steroid usage among both Black and White 8th and 10th grade males increased during the steroids era in major league baseball, and declined afterwards. Similar patterns were observed for Black and White adolescent males who were sports inactive, as well as their counterparts who were sports active, albeit at lower rates. These results lend support to the concern that steroid abuse by professional athletes may negatively affect young male adolescents who may often idolize major athletes. Since national data shows that approximately one-half of all high school males say they have athletes as role models, it is not surprising that trends in adolescent male steroid use, mirrors steroid use trends in professional baseball. Additionally, because, adolescent males

generally idolize star athletes, whether or not they themselves participate in varsity sports, it is also not surprising that steroid use prevalence rates increased among males who were sports inactive, during the “steroids era” in major league baseball.

Regarding the question of racial variations in male adolescent steroid usage patterns, we find notable differences. Specifically, we found that across the three periods examined, Black male adolescents reported lower rates of steroid use than their White counterparts. This finding is consistent with most studies of adolescent substance usage. The weaker association between Black male adolescent’s steroid use and the “steroids era” trends in baseball may be in part due to declining Black male participation in major league baseball and baseball’s lower popularity among Black youth compared to other major sports like football and basketball. However, the weaker association between Black male adolescents’ steroid use and the “steroids era” trends in baseball may also be because fewer Black major league baseball stars have been associated with steroid abuse. For example, despite the disproportionate media attention devoted to alleged steroid abuse by home-run king Barry Bonds, the vast majority of steroid abusing (alleged or documented) players are either White or Latino.

Finally, with regard to the question of whether sport participation serves as a protective or risk factor in relation to male adolescent steroid usage we find mixed evidence. Specifically, our results show that sport participation served as a protective factor, but only for Black males. Sports active Black male adolescents reported lower rates of steroid use than Black males who were not involved in sports. In contrast, sports active White male adolescents reported higher rates of steroid use than White males who were not involved in sports. These differences may also be explained by the higher baseball participation rates among White males and their greater likelihood of having been associated with baseball steroid abuse noted above. However, these patterns need further study as they may reflect underlying race-ethnic differences in the potential for organized sport to operate as a protective factor against youth risky behaviors.

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Table 1.
Trends in Steroid Use among 8th and 10th Grade Males (All) Prior to, During, and Following
the Steroids Era in Major League Baseball (1991-2007)

(N=212263)

Steroid Use	Sport Status	Pre-Steroid Era	Steroid Era	Post-Steroid Era	Chi-square
		1991-1993	1994-2003	2004-2007	
lifetime	Active in sports	2.8%	3.4%	2.0%	276.071***
	Inactive in sports	2.1%	2.9%	1.7%	38.201***
	Chi-square	9.919***	20.695***	2.677*	
last 12 months	Active in sports	1.8%	2.1%	1.8%	31.499***
	Inactive in sports	1.0%	1.6%	1.4%	12.625***
	Chi-square	18.100***	27.416***	8/063***	
last 30 days	Active in sports	.9%	1.1%	1.1%	14.839***
	Inactive in sports	.6%	.9%	1.0%	6.499**
	Chi-square	5.465**	9.583***	1.195	276.071***

Table 2.
Trends in Steroid Use among 8th and 10th Grade Black Males Prior to, During, and Following
the Steroids Era in Major League Baseball (1991-2007)

(N=36528)

Steroid Use	Sport Status	Pre-Steroid Era	Steroid Era	Post-Steroid Era	Chi-square
		1991-1993	1994-2003	2004-2007	
lifetime	Active in sports	2.0%	2.4%	1.8%	10.872***
	Inactive in sports	2.1%	2.8%	2.1%	1.899
	Chi-square	.064	1.542	.344	
last 12 months	Active in sports	1.1%	1.4%	1.5%	3.175
	Inactive in sports	1.5%	1.7%	1.9%	.495
	Chi-square	.629	1.477	1.058	
last 30 days	Active in sports	.6%	.8%	.9%	2.819
	Inactive in sports	.3%	1.2%	1.7%	5.625*
	Chi-square	.918	4.417**	4.219**	

Table 3.
Trends in Steroid Use among 8th and 10th Grade White Males Prior to, During, and Following
the Steroids Era in Major League Baseball (1991-2007)
(N=175735)

Steroid Use	Sport Status	Pre-Steroid Era 1991-1993	Steroid Era 1994-2003	Post-Steroid Era 2004-2007	Chi-square
lifetime	Active in sports	2.8%	3.6%	2.0%	207.630***
	Inactive in sports	1.8%	2.7%	1.7%	25.838***
	Chi-square	14.367***	27.459***	1.812*	
last 12 months	Active in sports	1.8%	2.3%	1.9%	33.002***
	Inactive in sports	.7%	1.6%	1.3%	16.378***
	Chi-square	23.708***	34.365***	9.523***	
last 30 days	Active in sports	.8%	1.2%	1.1%	22.288***
	Inactive in sports	.5%	.8%	.8%	3.573
	Chi-square	4.862**	20.038***	5.704**	

Academic Engagement among African American Males Who Hold Aspirations for Athletic Careers in Professional Sports¹

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Coleman's seminal work, *The Adolescent Society* (1961), sparked a debate over the relationship between participation by students in extra-curricula activities and academic engagement that continues into the present. Coleman found a negative correlation between involvement in extra-curricula activities and academic success, and concluded that the time and energy devoted to extra-curricula activities directed precious time away from proper academic achievement (Coleman 1961). Since participation in sports has been a major extra-curricula activity in schools for the nearly 50 years following Coleman's seminal work, much of the debate has centered on the relationship between sports participation and academic success in middle and secondary schools. Braddock (2005) notes that 82 percent of middle schools and 98 percent of high schools provide sports participation opportunities in school-based athletics, including opportunities for competition between teams from different schools. Subsequent research produced findings that challenged Coleman's conclusion that school-based athletics detract from student success and the educational mission of schools (see for example: Hanks & Eckland 1976; Braddock 1980; Braddock 1981; Snyder & Spreitzer 1990; Marsh & Kleitman 2003; Braddock 2005; Braddock, Hua & Dawkins 2007). In addition, other evidence indicates that sports participation has other positive benefits for adolescent development, including enhanced physical and mental well-being (Birrell 1983; Crocker et al. 2000), higher self-esteem (Birrell 1983; Bunker 1991; Coop & Rotella 1991; McHale 2001;

1 An earlier version of this paper was presented at the annual meeting of the Association of Black Sociologists, New Orleans, LA, June 17 2009. Please address all correspondences to Jomills H. Braddock,II (braddock@miami.edu)

Phillips 1998), decreased discipline problems (Marsh 1993), and reduced incidence of depression (Sabo, Miller, Melnick & Heywood 2004; Phillips 1998), suicide (Phillips 1998) and substance abuse (Dawkins, Williams & Guilbault 2006).

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 blacks and other minority youth. For example, Edwards (1986) has been a chief spokesman for the argument that sports participation is overemphasized among black boys and men. Edwards and others argue that the mobility aspirations of millions of black males lead them to believe that, by placing greater emphasis on sports, they are securing their destiny, which is the fulfillment of a journey to the life of a highly paid, professional athlete. Therefore, participation in sports diverts attention and efforts away from academic engagement. The question of whether participation in sports contributes to or detracts from the social and educational development of blacks is an extension of the argument raised initially by Coleman, but framed in the context of the social milieu which characterizes the circumstances faced by many blacks who grow up in a climate where excelling in sports competes as an avenue for mobility with the conventional focus on education and academic engagement as the key to future success.

This debate has been characterized by Braddock (1980) in terms of two competing hypotheses: (1) *participation in sport-impedes-mobility* and (2) *participation in sport-enhances-mobility*. The sports-impedes-mobility hypothesis, which has been the dominant perspective injected in past and more recent debates over the overemphasis on sports in America, argues that involvement in athletics decreases interest in academic engagement and reduces aspirations for pursuing success through educational attainment. Thus, for millions of black youth who aspire to becoming a professional athlete as a major goal, 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. Devoting efforts and energies to be fully engaged in the learning process is secondary to development as an athlete. Since the sport-impedes-mobility, perspective views sports and academics as competing, students who choose to be athletes must be fully engaged in athletics, while disengaging from their academic development. Even for the few highly talented athletes, the sports-impedes-mobility perspective

recognizes that an overemphasis on sports may lead to disappointing results if circumstances such as injury cut short one's journey to the top. Despite the tremendous odds against "making it" in professional sports, little emphasis is placed on developing academic talents in preparation for other careers as an alternative.

The sport-enhances-mobility hypothesis provides an alternative perspective to assess the relationship between sports participation and academic engagement and future attainment of educational and occupational goals. This perspective argues that participation in sports can increase academic engagement and success. For example, Braddock (2005) argues that participation in sports operates through the mediating factors of social and cultural capital, school engagement and personal resilience to influence students' academic success. Sports participation also enhances mobility indirectly by operating as a protective factor against deviant behaviors and promoting such valued assets as maintaining exercise and fitness, and developing the ability to handle adversity and contribute to teamwork and sportsmanship (Rasmussen 2000).

Sports Participation and Academic Engagement: A Typology

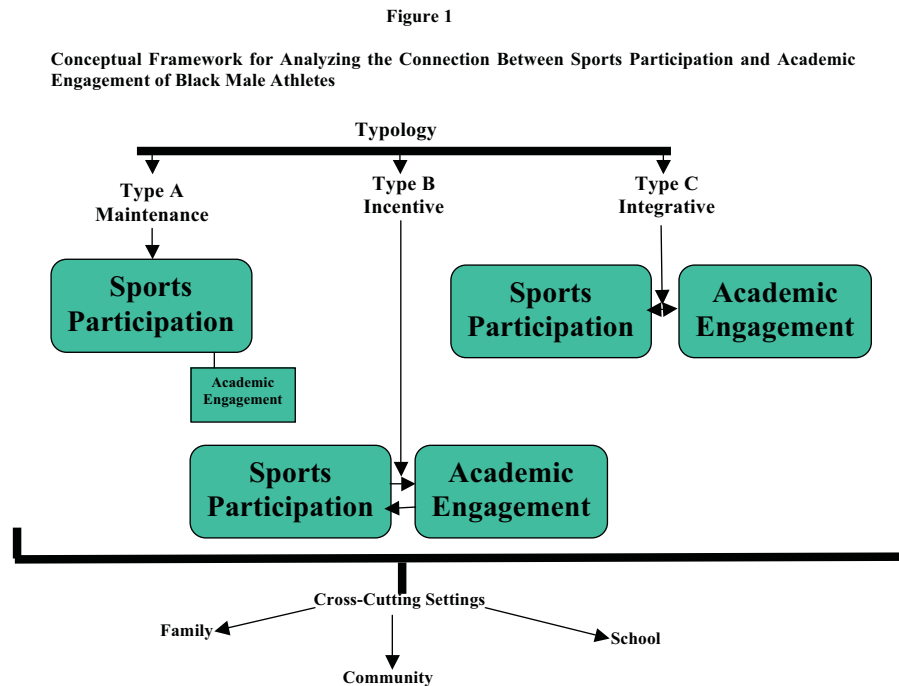
Students who are academically engaged are actively involved in the learning process, devote full attention to their studies and have a commitment to their academic success, while students who are not academically engaged lack interest, display apathy, and participate only superficially in their academic pursuits (Newman et al. 1992; Finn 1993). 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. The typology in Figure 1 provides a conceptual framework for analyzing these possible connections.

Among student-athletes with aspirations for major sports, emphasis on sports may begin early in childhood and the extent to which they become academically engaged may also begin early on with complicity from parents, schools and coaches in the settings of family, community and school. While the connection between sports participation and academic engagement needs closer examination to understand whether sports impedes or enhances mobility, generally, this issue is especially important in addressing mobility aspirations of African American student-athletes and their parents who have their sights on big-time athletics with the ultimate

goal of reaching the ranks of professional sports. As shown in Figure 1, the typology includes three “ideal types” or models that characterize the connection between sports participation and academic engagement: Type A: “Maintenance,” Type B: “Incentive,” and Type C: “Integrative.”

Figure 1

Conceptual Framework for Analyzing the Connection Between Sports Participation and Academic Engagement of Black Male Athletes



Maintenance - The key goal in the maintenance model (Type A) is for students to maintain eligibility for participation in sports. In this model, excelling in sports is the dominant activity for both students and their families. At the high school level, the star athlete is especially popular and highly sought out as a prospect by colleges and universities, who are in contact with the student-athlete as well as parents and coaches of the student-athlete. Academics are central to realizing the mobility aspirations of the student-athlete insofar as the need to (a) maintain eligibility to play, (b) graduate from high school and (c) meet college entrance requirements, including required scores on standardized tests for admission to college. Therefore, under the maintenance model, participation in academics is important only to the extent that compliance with rules established by schools and interscholastic athletic associations at state and local levels can be maintained. However, since the connection between

sports participation and academic engagement begins much earlier, the process of viewing academics only in terms of maintaining eligibility for participation in sports also begins earlier. For example, even community-based, youth sports programs normally require that children be in good academic standing to participate in these programs. There may be some exceptions, as Robert Powell demonstrated in his critical examination of the world of high stakes, youth football in Miami in his book, *We Own This Game* (2003). Under the maintenance model, the connection between sports and academic engagement is imbalanced. The primary commitment of the student is clearly to excel as an athlete with the goal of becoming a star performer in high school and college and ultimately reaching the professional ranks. On the other hand, education is viewed as necessary, but imposed, serving as an obstacle to overcome if the goal of reaching athletic stardom is to be realized. Academic engagement is “forced” and the aspirations for success in education are limited to achieving the goal of maintaining eligibility to participate in sports.

Incentive – Similar to the maintenance model (Type A), the incentive model (Type B) is an ideal type, which includes a strong interest and commitment to participation sports. However, unlike the maintenance model, under the incentive model there is also a strong commitment to academics. Participation in sports may serve as an incentive to pursue academics seriously, and doing well academically ensures that aspirations to achieve goals that extend beyond sports can be realized. Therefore, participation in sports is viewed as both an incentive to engage academically and an avenue that can lead to realizing mobility aspirations for attainment of educational and long-term occupational goals. The process of connecting success in sports with academic achievement usually begins in childhood, rooted in socialization experiences where both athletic and academic success are encouraged and rewarded by parents, teachers and others. Thus, academic engagement is elevated to the same level as sports participation, with success in the latter serving as an incentive to doing well in the former and vice versa.

While the goal under the incentive model is to do well, both as an athlete and in academic pursuits, the demands placed on student-athletes, especially in the highly visible, revenue-generating sports, in terms of time and energy that must be devoted to developing as an athlete, often place sports and academics at odds or as competing forces. Therefore, the connection between sports participation and academic engagement can be

strained and non-reinforcing. In highly competitive interscholastic sports environments at the high school and college levels, many black student-athletes and others find that the incentive of sports as a means of doing well academically may be overshadowed by the overwhelming demand to devote disproportionately greater attention to athletics at the expense of academics. Yet, recent evidence indicates that black parents whose children are involved in interscholastic sports at the high school level are highly engaged with them around educational matters, suggesting that strong parental involvement may provide a key to continued academic engagement (O'Bryan, Braddock & Dawkins 2006). Ideally, a strong commitment to academics and the incentive to be as successful in the educational as the sports realm, when rooted in values acquired through socialization, will enable blacks and other student-athletes to excel, even, sometimes at a higher level than their non-athletic counterparts as exemplified by awards such as the Rhodes Scholarship and "All-Academic" honors.

Integrative – The integrative model (Type C), as an "ideal type," places sports and academic engagement on an equal plane, whereby both are highly valued and mutually reinforcing. Unlike the maintenance model (Type A), which views academic engagement and sports as "conflicting" forces, or the incentive model (Type B), which views academic engagement and sports as "competing" forces, the integrative model (Type C) views sports and academic engagement as "compatible" forces. The integrative model views the high interest level in sports among young people as an opportunity and relatively untapped resource for connecting student engagement in school and the classroom with sports. As Sokol-Katz, Basinger-Fleischman and Braddock (2004) note, "Sport captures varying degrees of interests from children of all backgrounds, regardless of whether or not they are participants in athletics. The weaving of sports concepts and contexts into teaching of core mathematics, reading, and composition lessons, then, would seem a logical instructional strategy for raising levels of student engagement, particularly with at-risk youth" (Sokol-Katz, Basinger-Fleischman & Braddock 2004: 1). From the perspective of the integrative model, sports and academics are integrated into the learning process with the goal of increasing academic engagement achieved as the high appeal of sports becomes transferred to the classroom and the lessons from the classroom played out both as demonstrations of physical activity on the playing field and decisions regarding career options beside sports. While a number of projects have successfully increased academic

engagement of students by using this approach, including the integration of football into middle school math lessons (Strickland 1996) and the use of baseball to demonstrate laws of physics (Adair 1990), the integrative model has not been extensively examined as a potential learning context for improving academic engagement of black student-athletes.

Academic Engagement and the Black Male Athlete: A Case Study

While the typology introduced in the previous section presents three “ideal types” (maintenance, incentive and integrative) as models which characterize the connection between sports participation and academic engagement, the actual experiences of individual black student-athletes may contain elements of one, two or all three models across the stages of one’s life experiences in sports and education from childhood to early adulthood. The following case study is presented to illustrate the manner in which each of the models in the typology may operate in the experiences of a single individual across family, community and school settings from the earliest stages of childhood through adolescence and early adulthood.

The Case of Eddie B

Eddie B (not his real name) is an African American male who grew up in the western suburbs of a large, Midwestern city. He lived with both of his parents in a fairly stable, middle-class community. His father worked for a large, Midwestern corporation in the railroad industry in a lower level, non-professional position, while his mother was a Ph.D. trained, licensed professional in her field. The family’s earnings enabled them to assume a fairly comfortable, but modest, lifestyle. While Eddie B’s father excelled as a high school football player, he migrated to the Midwest from a state in the deep South shortly after completing high school; his mother also grew up in a sport-minded family in the South, but was only mildly active in athletic pursuits (she was a champion intra-mural bowler at a small college), and came to the Midwest after completing graduate degrees. Eddie B displayed an early interest in sports and unusual signs of athleticism even as a toddler. Before Eddie B reached the age of 10, he was bigger and stronger than his peers were and able to compete effectively in youth sports in higher weight categories where most of the other children were much older. He gained increasing notice by coaches from community-based teams and eventually at school, especially after entering middle school and participating in interscholastic sports. While Eddie B was a well-adjusted, above average student, his efforts and interest in academics began to decrease as sports became a more central focus in his

life. As a latch-key youth entering early adolescence, Eddie B spent much of his time engaged in organized, after school sports programs at the “Y,” on community playground teams, or as a member of school-based teams. Since he excelled in multiple sports (including baseball, basketball and football), he was popular as an athlete both in his community and at school. He even earned the nickname “Sport,” which was used affectionately by friends, coaches and some teachers. While his parents were proud and supportive of his accomplishments in sports, they also felt that sports were being over-emphasized in his social development. For example, one little league baseball coach would make exclusive trips to his home to give Eddie B a ride to each game to ensure that he would attend every game, even when Eddie B’s parents assured the coach that they would be taking their son to games. As Eddie B prepared to enter high school, his parents received personal visits from coaches from many of the high schools in the metropolitan area, some of which were well-known as schools attended by individuals who went on to become highly successful professional athletes. In fact, the recruiting of middle-school student-athletes by rival high schools was not a new phenomenon and usually embraced by parents who saw it as a sign that their child was being identified as a future pro prospect. However, for Eddie B’s parents this greatly concerned them, since it was clearly motivated by their son’s attractiveness as an athlete rather than interest in his academic development. Eddie B was not only happy about the attention that he was receiving, but began to chart his path to the professional ranks following in the footsteps of the former high school players who had attended these high schools to later become star players at the professional level. Eddie B’s parents decided on a small, private, parochial high school for him to attend, in large part, because the school stressed academics and was less likely to place Eddie B in the limelight of the sports media-frenzy that characterized this metropolitan sports market. Although the high school that Eddie B attended participated in an athletic conference consisting of similar small schools, this school had been largely unsuccessful for many years as a competitive force in the conference. As an instant success in football, Eddie B became the starter at quarterback in his freshman year and, over the next four seasons, the school he attended reached unprecedented heights that were uncharacteristic in winning conference championships and gaining recognition for itself and Eddie B throughout the metropolitan area. In the meanwhile, Eddie B’s academic engagement was clearly based on an interest only in meeting the minimal requirements for maintaining eligibility and gaining admission to college. Eddie B was identified as one of the top 15 recruits in the metropolitan

area and was highly sought by major universities, nationally. Eddie B had expressed a desire to attend a big-time school where he could gain national visibility and exposure to professional football teams. Privately, he revealed his desire to leave college after two years and turn professional. His reasoning was that two years would sufficient time to display his talents and attract the attention of professional football teams. Eddie B signed a letter of intent to attend a large university located in the Midwest and a member of the Big Ten Conference. Therefore, upon entering a large university that was well-known both for its sports-mindedness, as a member of one of the most competitive conferences in the country, and its national reputation as a prestigious academic institution, Eddie B had little interest in education and engaging academically beyond what was necessary to maintain eligibility for the two years that he planned to remain as a student-athlete. As a freshman athlete, Eddie B was projected to be among a small number of first year players to start at his position (cornerback) in the Big Ten. However, very early on in his college career, he encountered difficulty adjusting academically, largely because of his failure to comply with the rules established by the team to ensure that players were meeting expectations (e.g., class attendance and performance, study hall attendance, etc.). In addition, Eddie B sustained an injury that prevented him from assuming the role of a starter, and encountered conflict with coaches over the time needed for recovery and return to the playing field (Eddie B felt he needed more time to recover fully). By the middle of the first semester, the differences between Eddie B and the coaching staff heightened and he became even further disengaged academically. Therefore, after only one semester, Eddie B left the university and the limelight of major college football.

Since Eddie B continued to hold aspirations for playing football at the professional level, he enrolled in a Midwestern junior college known for being a haven for students like Eddie B who had failed to maintain academic eligibility. Eddie B was successful in restoring his academic eligibility status, earning a 3.2 GPA after a summer and one semester at the junior college and made plans to return to a Division I institution and to resume his quest toward the goal of reaching the pros. As Eddie B prepared to enroll at his second Division I, Midwestern university, which was a medium-sized institution in a less competitive conference than the Big Ten, he encountered a life changing experience which affected his outlook on both returning to sports and engaging academically in his new surroundings. Upon returning to his hometown after completing the stint

at the junior college and to prepare for the trip to his new university, he received news that one of his childhood friends was killed tragically in a gang-style violent attack that also severely injured several of his children and other family members. Like Eddie B, his friend had excelled as an athlete during childhood and adolescence, but was disengaged from school and never able to capitalize on his talents as an athlete in terms of moving toward the fulfillment of aspirations to become a professional athlete. Despite his friend's path, which led to early fatherhood and low-level drug dealing, Eddie B remained in constant contact with his friend, who often encouraged him to take advantage of the opportunities he had to become successful as an athlete. This life-changing experience, which occurred shortly before Eddie B returned to school, influenced his outlook on both the desire to be successful in sports and the role of education in the process of realizing goals beyond sports. Sports, which became an incentive to do well academically beyond the need to maintain eligibility and academic engagement, was, therefore, elevated to a level of importance where it would serve as an avenue for realizing goals beyond sports.

Since National Collegiate Athletic Association (NCAA) rules required that Eddie B "sit out" for one year before resuming his athletic career, the year at his new school was spent heavily engaged in physical conditioning and academics. Unlike his earlier experience as a freshman at the school in the Big Ten, Eddie B was equally connected to sports and academics. In fact, his experiences in the classroom began to influence his attitudes, outlook and decisions about the role of sports in his life. For example, during a course in African American studies, Eddie B became aware of the history of exploitation of black athletes, especially the accumulation of wealth by whites from the labors of black athletes, which sports journalist Bill Rhoden (2006) would later term "forty million dollar slaves" in his book by the same title. After completing a report in this course on an illustrious black leader and founder of a historically black college (HBC) and, fortuitously, finding out that one of his friends with whom he became reacquainted was currently attending that college on an athletic scholarship, Eddie B became interested in transferring to this college. As Eddie B became more academically engaged through the integration of knowledge of history and sports, his once, single-minded aspirations for pursuing a career in professional sports began to broaden to a desire to prepare for alternative careers outside of sports. Because of this renewed outlook, Eddie B decided to transfer to this small, historically black college and participate in football at the lower, Division II level, instead

of remaining at a Division I institution. Eddie B played football as a non-scholarship athlete (i.e., a “walk-on”) during his first year at the HBC and as a scholarship athlete in his second and final year. A capstone of Eddie B’s college career was being named a Black College, Academic All-American in his senior year, a recognition that represented the movement of the connection between sports participation and academic engagement across the three levels of the typology from the maintenance, the incentive, to the integrative model. Despite retaining aspirations for a professional career in football and attracting some interest from professional teams, a major injury sustained in his senior year removed any chance that Eddie B would have for realizing a professional career as an athlete. However, Eddie B went on to earn an M.B.A. degree as is well on his way toward realizing mobility goals outside of becoming a professional athlete...

Conclusion

As the typology for analyzing the connection between sports participation and academic engagement indicates, and the case study of Eddie B illustrates, the question of whether sports impedes or enhances aspirations and chances for attaining mobility goals among blacks is more complex than often portrayed. For example, the notion that the tremendous odds against realizing the goal of becoming a professional athlete should deter black youth from aspiring to reach this achievement must be viewed in the context of (1) the high visibility of successful black professional athletes who have beat these odds, (2) the perception that the odds against realizing the goal of becoming a professional in such underrepresented fields as medicine, law and engineering are equally great, (3) the challenges of academic engagement faced by many black youth based on their early experiences of failure in fractured schools, especially in inner-city urban communities, and (4) the view among many parents that nothing is wrong with cultivating and supporting the talents of their children, whether in sports, academics or other areas. However, black youth who exhibit extraordinary athletic talents at an early age may be at-risk of academic disengagement unless there is a strong commitment by parents, teachers and coaches to recognize the dangers of not introducing educational values that foster academic success very earlier on in the socialization experiences of these youth in the contexts of family, community and school. Too often, concern over academic engagement of blacks does not come until the high school level when attention is focused on maintaining eligibility and meeting college admission requirements. However, this may be too late, since early disengagement from school while overemphasizing sports

can lead to young people never developing the foundational skills that are needed in such areas as reading, composition and math to be even minimally successful at the high school level.

Additionally, attempts by regulatory bodies at the college and professional levels (e.g., The NCAA, NBA, NFL, etc.), to enact what are felt to be stringent policies for high school student-athletes seeking admission to college or going directly to the professional level may actually contribute to the perpetuation of a disconnect between sports participation and academic engagement. For example, the current policy of requiring a high school athlete to attend college for one year before being allowed to “jump to the pros” (the so-called “one and done” rule) may encourage the practice of maintaining minimal academic engagement of student-athletes through high school and one year of college, at best, or fostering the violation of rules by using “ringers” to replace unprepared students to take college admission tests such as the SAT or ACT, at worst.

To conclude, sports participation and school engagement among black high school students should not be viewed as necessarily antithetical forces. Indeed, as we have suggested through the introduction of the conceptual framework or typology for analyzing the connection between sports participation and academic engagement, the elements of sports and academics may be conflicting, competing, or compatible in the experiences of students who aspire to realize their goals for future success. Among black student-athletes, the development of a strong connection between sports and academics, following tenets of the integrative model, is especially needed prior to reaching high school to avoid “forced academics” and its negative consequences for realizing the attainment of career mobility aspirations in sports and beyond.

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**WHAT WORKS? A QUALITATIVE EXAMINATION OF THE
FACTORS RELATED TO THE ACADEMIC SUCCESS OF
AFRICAN AMERICAN MALES AT A PREDOMINANTLY WHITE
COLLEGE IN THE SOUTH**

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Abstract

Our study examined the factors related to the retention/academic success of African American males at a mid-sized, regional, predominantly white university in the south. The selected university has an African American male graduation rate, of approximately twenty-three percent, which is thirteen percentage points below the national Black male average. Feagin's (1998) theory of cumulative discrimination was used to analyze in-depth interview responses from fifteen African American males who were selected using convenience sampling.

Introduction

As of 2006, African American college students have a graduation rate of 43% compared to 63% for their white counterparts (*Journal of Blacks in Higher Education* 2007). Even more disappointing is the fact that African American males have a graduation rate of 36% compared to 47% for African American females (*Journal of Blacks in Higher Education* 2007). Over the past two decades, racial differentials in both the enrollment and completion rates between Black and White college students have increased (Campbell and Fleming 2000; Feagin et al. 1996; and Robertson et al. 2005). Further, at the end of the twentieth century the largest proportion of African Americans attending college were women who attended predominantly white colleges and universities (Schwitzer et al. 1999). Between 1990 and 2006, the graduation rate for Black women rose from 34% to 47% while the graduation rate for black males rose from 28% to 36% (*Journal of Blacks in Higher Education* 2007). In 2000, approximately 475,000 Black men between the ages of 18 and 24 were enrolled in college (Maxwell 2004). Moreover, in 2003, 1,266,107 African American women were enrolled in college compared with 686,615 African American men (Garibaldi 2007). According to Anyaso (2007), sixty-seven percent of Black males who begin college never receive their bachelor's degree while only comprising 4.3% of the students attending American colleges and universities. Thus, the pertinent question becomes, "what works in retaining African American male college students?"

Review of Literature

The review of literature centers largely on the variables identified by Simms et al. (1993), Robertson et al. (2005), and Sedlacek (1983) as pertinent to the matriculation of Black males at predominately White colleges. The institutional factors cited as most important to Black male matriculation are faculty involvement, financial assistance, classroom environment, academic and personal support resources, extracurricular activities, and the African American male students' ability to handle racism.

Faculty Involvement

Several researchers (Ancis et al. 2000; Edelin-Freeman 2004; and Robertson et al. 2005) have discussed the importance of African American students in general, and Black male college students in particular, establishing positive relationships with faculty. Robertson (1995) posits that Black male students who have good relationships with White faculty

members are more likely to be satisfied in the White college environment. Moreover, positive relationships with faculty facilitate healthy social and personal development amongst African American college students. This positive social adjustment is one of the best determinants of good academic performance (Cuyet 1997; Robertson et al. 2005; and Edelin-Freeman 2004). Unfortunately, there is a relative dearth of studies that adequately examine the relationship between black male students and white faculty members (Vasquez and Wainstein 1990).

Financial Assistance

The importance of the relationship between finances and black college student success cannot be over emphasized. “Financial assistance availability is a substantial predictor of African American success and performance” (Simms et al. 1993, p. 258). Studies show (e.g., Feagin et al. 1996; Fleming 1984; Furr and Ellin 2002) that African American students from higher socioeconomic backgrounds perform better at predominantly White colleges than those from more modest or working class backgrounds. Correspondingly, the cost of university attendance is a major contributor to the fact that a disproportionate number of low income Black students attend two-year institutions at a higher rate than their white counterparts do (Horn et al. 2002). The financial dilemmas of Black males are more pronounced when one takes into consideration that only 38% of Black college students are male (Cuyet 1997). Further, Patitu (2007) identifies cost of attendance as one of the major barriers faced by of college-bound African American males. To add, Black students who attend White colleges are more likely to come from racially segregated neighborhoods than their white counterparts (Charles et al. 2004). Racially segregated environments, at least for Black Americans, are more intimately connected with economic inequality and stressful/negative social networks that combine to undermine academic performance and increase the probability that the student will need to work to defray the costs of education (Charles et al 2004).

Classroom Environment

African American students perform better in classes where the course content is reflective of their experiences and interests (Robertson 1995; Thompson and Lorque 2005). In other words, when professors integrate information about the accomplishments of African Americans into the content of the class, the interest of Blacks students increase and they are more likely to perform better (Robertson et al. 2005). In addition, Johnson

(2001) posits that course offerings that include African-centered classes, i.e., classes that focuses on the experiences of Blacks across the Diaspora, have been shown to be more receptive to the adjustment needs of Black students at predominantly White institutions. A supportive classroom environment is an even greater necessity when juxtaposed with the fact the more Black males attend White as opposed to Black colleges. Therefore, when White instructors are engaging and make Black students feel as though they are part of the class environment, Black students feel like they belong and adjust better (Booker 2007). Yet, ironically, more African American males graduate from predominantly Black colleges than from predominantly White colleges (Edelin-Freeman 2004; Johnson 2000; Robertson et al. 2005).

Academic and Personal Support Services

According to McClure (2006), Black male students have the highest attrition rates of any collegiate demographic. Therefore, African American male students enter white college settings with special needs (Cuyet 1997). Paramount among those need are: 1) a non-threatening educational environment that encourages the nurturance of academic success; and 2) the deconstruction of stereotypical negative images of Black males (e.g., non-intelligent, thugs), (Fleming 1984). According to Hopkins (1997), Black male students enter the white university environment with a clear understanding that society expects negative outcomes from them. Therefore, it is imperative that campus administrators, if they are truly committed to the success of these students, provide programs (e.g., tutoring, mentoring, social adjustment) for African male to counteract what Kunjufu (1986) calls the “failure syndrome.” Failure syndrome is a concept suggesting that Black male students often internalize the negative perceptions/attitudes held of them by school officials and teachers and these negative perceptions ultimately become a self-fulfilling prophecy. This process can begin as early as the fourth grade and persist throughout ones college career. Additionally, Campbell and Fleming’s (2000) research suggests that a positive self-concept is a corollary of favorable social adjustment which has been shown to be a major determinant of Black male college student success.

Extracurricular Activities

Athletic participation is an important component of self-esteem, facilitating social adjustment and ensuring college completion among male African American students (Pascarella and Smart 1991). Likewise,

fraternal membership in traditionally Black Greek-lettered organizations has been shown to support positive social and academic integration, which in turn is correlated with better grades and retention (McClure 2006; Robertson, et al. 2005; Tinto 1993). Along with aforementioned, Black Greek-letter organization, membership has been demonstrated to increase political involvement, community involvement, and facilitate the development of positive social networks among Black male college students (Jones 1999; McClure 2006). Moreover, having solid relationships with fraternity members can serve to counteract the alienation that Black males often experience on White college campuses (McClure 2006).

Understanding and Dealing with Racism

Racism has been a persistent impediment to the success of black students in white college environments (Feagin, Vera, and Imani 1996). Black students often enter traditionally white universities with expectations of being accepted as equals (Suarez-Balcazar et al. 2003). However, often to their dismay, the predominantly white university can be a hostile environment (Smedley, Myers, and Harrell 1993).

Negotiating racism is of special importance to African American male college students. One of the primary explanations for the relevance of racism is the reality that African American males have higher university attrition rates than their minority male counterparts (Flowers 2006). Racial prejudice leads to feelings of social alienation, which can create a contentious university experience that may result in stress, anxiety and poor academic performance (Fleming 1984). Thus, the combination of racial prejudice, social alienation and the preconceived negative attitudes regarding black males make race a paramount issue for black male student retention at predominantly white colleges (Campbell and Fleming 2000; Johnson 2001; Singer 2005).

Method

This study utilizes in-depth interviews to identify the factors, as delineated in Simms et al. (1993), Robertson et al. (2005), and Sedlacek (1983) that are most relevant to the retention of Black males who attend predominantly white universities. The use of qualitative interviews is necessary to examine our topic thoroughly and to tap into the rich textual meanings of the students' responses.

Qualitative Methodology

Subjects. In this study, fifteen interviews were conducted with African American male students at a mid-sized, regional university in the south from August 2008 through April 2009. Purposive sampling (due to time and monetary constraints) was employed to solicit participants according to the format explicated in Berg (2007). This sampling technique is useful for obtaining subjects in studies of this nature with monetary constraints.

Data. The data were obtained via in-depth interviews. The interview questions addressed the major factors related to Black male student matriculation as identified in Simms et al. (1993), Robertson et al. (2005), and Sedlacek (1983). Thus, the research was guided by the following open ended questions:

- Describe your interactions with faculty members at this institution.
- Are faculty members involved in the development of black male students? If so, how?
- Since you have been attending this institution, has a lack of money ever been a problem?
- Did the university provide information on how to obtain financial aid? If so, what were you told? Was the information helpful?
- Do you feel that your professors, infuse information that is relevant to African Americans in your classes (e.g., information pertaining to race, discrimination, and social class)? Why or why not?
- Does your university offer classes that focus on their experiences (e.g., Black history, Black studies)? Why or why not?
- Are African Americans male students encouraged to participate in intramurals, social organizations, student government?
- Are there pan-Hellenic, i.e., Black Greek-letter organizations on campus?

Analysis Techniques. The data were analyzed using content analysis according to the schemata explicated by Berg (2007) who contends that content analysis is “the most obvious way to analyze interview data” (p. 134). In the present study, the authors employed latent content analysis which allows one to discern the “deep structural meaning conveyed by the message” (Berg 2007: 308).

The ties between data and literature were made using Feagin’s (1998) theory of cumulative discrimination. Cumulative discrimination theory

contends that discrimination entails “a college career or lifetime series of blatant and subtle acts of differential treatment by Whites which often accumulates to a severely oppressive impact” (Feagin 1998: 318). Further, cumulative discrimination theory suggests that the discrimination experienced by Black students takes one of four dimensions: (a) aggression, verbal and physical; (b) exclusion, including social ostracism; (c) dismissal of subculture, including values, dress, and groups; and (d) typecasting, including assuming Blacks are all alike (Feagin 1998: 317). Thus, when African American males do not experience discrimination/racism and adjust well socially, they are more likely to be academically successful, stay in school, and graduate.

Findings

The findings in this study both corresponded to and differ from the existing literature on student academic success. The data are organized around the most frequent themes identified by respondents: racial prejudice, faculty-student relations, social alienation and classroom environment. Participants responded to questions and statements that focused on succinct predictors of Black male academic success as identified in the existing literature (Allen 1998; Cross and Astin 1981; Fleming 1984; Furr and Theodore 2002; Sedlacek 1987; Simms et al. 1993).

Feagin’s (1998) theory of cumulative discrimination is used to connect theory with data. Feagin’s (1998) collegiate discrimination construct posits that the disparate treatment of Black students in general, and Black males in particular, reduces the possibility of academic success and lowers graduation rates. Feagin (1998) proposes in his theory/concept that the “oppressive impact” of racial discrimination may take one of four forms: (1) aggression; (2) exclusion, including social ostracism; (3) dismissal of subculture; and (4) typecasting, i.e., suggesting that all Blacks are alike.

The most prominent or frequently emerging variables that fit within the framework of Feagin’s (1998) construct are presented. Further, each typological dimension is offered with the subsequent interview retort. A brief commentary is offered to elucidate how the modal responses relate to and differ from the existing literature.

Aggression

Aggression is the first component of Feagin’s (1998) typology. This variable contends that Black male students will be the recipients of verbal and physical aggression. The most direct subject responses on the idea that

Black male students are victims of verbal and physical aggression come from Mike, a twenty-seven year old sophomore, and John, a twenty-four year old senior, and Anthony, a forty-six year old sophomore:

I would not describe it as bad in my opinion; however, every now and then when you go to the restroom you will see that some idiot has written racially disparaging remarks on the stall doors. ¹

Mike, the first respondent, was asked to describe the racial climate at the university. As is commonplace at many predominantly white institutions, racially disparaging remarks are often verbalized or etched on the walls of dorms, public spaces, or in restroom stalls. Feagin et al. (1996: 57) posit, “pain-creating racist epithets, like nigger, coon, and boy, are used by whites as a way of defining certain areas as White spaces.” Consequently, it can be assumed that this is a way to designate racially the university as the domain of whites and to create an environment that is not conducive to Black male success.

Exclusion, Including Ostracism

The second tenet of Feagin’s (1998) discrimination theory is centered on the idea that black males are isolated and made to feel as outsiders at the university. Prominent African American scholar Jacqueline Fleming, in her seminal work *Blacks in College* (1984), expounds on the impact of social ostracism on Black students:

Feelings of alienation and disconnect from the university appears to devastate both the education and vocational aspirations of males, which decline significantly from freshman to senior years (p. 66).

Fleming (1984) also posits that alienation experienced by Black males contribute to feelings of academic inertia. The relevance of Fleming’s (1984) comments is that it corresponds with more contemporary findings in the available literature on the reality of the White college milieu as being alienating and racially hostile for Black students (Lett and Wright 2003). The barriers to matriculation for Black students can range from subtle loathsome glances, physical intimidation, to condescending comments from professors (Feagin 1998; Furr and Elling 2002; Lett and Wright 2003). The selected responses from Black male students reflect

1 Interview #2 (Mike, twenty-seven year old senior)

general feelings of alienation and segregation heaped upon them by white professors, the result of a dearth of Black professors, and the White college environment. Along these lines, the following responses from Black male students could be surmised as accurate portrayals of exclusion at the predominantly White college:

The professors tend to lean toward white students. The relationships that they have with White students are different. They, the professors, have stronger relationships with White students. It seems as though the White professors are more comfortable with White students. They can joke with them (White students) more than Black students can.²

I feel we (Black males) have lower graduation rates and fewer jobs after graduation. I feel the feel the professors do not help Black males excel and do well. They do not always want to see Black males succeed because then we will not be competing with them for their jobs. For instance, I had a test due and one of my family members and I missed my morning class, but I came back the same day and tried to take the exam but the professor said it was too late. However, during the final exam, a White girl came an hour late and he still let her take it.³

There is definitely a racial division between Black and White students. You notice that the Black students hang out with Black folks and White folks hang out with White folks. This area (the local community) with its largely White suburban towns, segregation is what Whites are used to. The fraternities and sororities segregate themselves from each other. The fraternities are the ones that set the social climate for the university.⁴

It is very segregated on this campus. When you go to the restaurant areas, Black students will hangout. On the other hand, White students will get their food and go. It is the same situation in the student center. I think that it is common nature for students to sit with members of their own race. I mean, Black students would probably sit with White students, but I do not believe White

2 Interview #5 (Marcus, twenty-one year old junior)

3 Interview #11 (Kevin, twenty year old junior)

4 Interview #3 (John, twenty-four year old senior)

students feel comfortable around Blacks. I think this is because they (Whites) may think that Blacks are loud and will make fools of them.⁵

The aforementioned responses from Black students tap into many areas of concern regarding black male student matriculation at predominantly White colleges. The existing literature is replete (e.g., Hopkins 1997; Sedlacek 1999; Simms et al. 1993; Tinto 1993) with exhortations of exclusion and ostracism of Black males in White college settings.

The students expressed myriad feelings and attitudes consistent with ostracism from both the larger White society in general and the university environment in particular. For instance, the response provided by Marcus, a twenty-one year old junior, indicates the belief that educated Black men represent a threat to the dominant White power structure in American society and that White professors have more collegial interactions with White students. Thus, it can be surmised that the Black males are excluded from the full benefits of a proper and equitable student-professor relationship as their White counterparts. The assessment of negative evaluations from professors of Black males can have a deleterious impact on their academic performance (Feagin 1998). Black males often enter college with notions that White faculty and administrators view them as the embodiment of negative stereotypes (e.g., intellectually inferior, likely to fail) which can serve as an impediment to good grades (Suarez-Balcazar et al. 2003). Black students are more likely to believe that White faculty members scrutinize their academic assignments more harshly than they do those of White students (Ancis et al 2000). Both of the aforementioned findings validate the existing literature. Robertson (1995) presents information that suggests that White males view Black males as more threatening to the dominant White power structure. Not only can the inference of Black males as a menace to the organization of White power structure result in greater university matriculation difficulties for Black males, the aforesaid inference may also explain why Black females report fewer impediments to their academic success in the White university milieu.

The remaining responses point to issues of racial division and self segregation in the majority college environment. Feagin et al. (1996) posits that the self-segregation by Black males is due to necessity and because the exclusion and ostracism by Whites is nothing more than a microcosm

⁵ Interview # 10 (Robert, twenty-four year old senior)

of what Black males face in the larger White society. The interview response provided by Robert, reinforces the aforementioned views of both the campus environment and the local collegiate community. For instance, when queried about the local areas surrounding the campus, the Robert points to the fact that White students at local restaurants appear to have no desire to sit and eat with Black students. Hence, it can be perceived that in the Robert's mind, the urban location of the university, and it is predominantly White inhabitants, are not warm and welcoming to African American students.

Dismissal of subculture

The dismissal of the subcultural experiences of African Americans entails a general devaluation of the norms, values, and folkways of African American students in general, and black male students in particular. When it comes to the negotiation of the White college environment, the Black subculture is often disparaged and this can reduce the likelihood of proper social adjustment and academic success (Brown 1997; Fleming 1984; Gallien and Peterson 2005).

The views expressed by several respondents reveal that the dismissal of African American culture and experiences come in the form of not offering classes that were relevant to the black experience, not discussing topics in the existing courses that were perceived to be relevant to Black students, and comments related to the lack of African American faculty at the university:

I mean they (professors) really do not want to get into controversial issues like affirmative action. They never, or rarely, want to tackle the issue of White privilege. I think I would like school more if there were more courses devoted to an accurate delineation of the African American experience. I guess that the university does not feel that the demand is high enough to create more courses. I once talked with the sociology professor (who is African American) who teaches one of the courses and he said that he has problems obtaining enough students to keep his class open. ⁶

In my classes, I do not see them (professors) trying to relate to the African American student. Maybe I do not have enough African American students in my classes. Maybe there are not

6 Interview #12 (Cedric, twenty year old sophomore)

enough African American faculty members. I have had only three African American professors since I have been here. I think the college experience would have been enhanced with more African American faculty because you ought to see a different view of different things.⁷

The following students expressed concerns centering on the lack of Black faculty, discussion of black experiences in classes, and the reluctance of white faculty to discuss controversial issues. Accordingly, when asked directly if the university offers courses on the dilemmas encountered by blacks in America, one male opined:

No, if they do, I have never seen them. It is sort of like they (courses focusing on the experiences of Blacks) are hidden. I mean American literature and all other types of Classes (e.g., Spanish, French) are blatantly put out there, but Black courses are not.⁸

The subsequent respondents further lamented the lack of course offerings addressing Black concerns, lack of Black professors, and once again, the inability of faculty to connect with Black male students:

There are not enough classes. This is not an historically Black college. I feel there would be more classes offered at a Black college.⁹

African Americans go through a very different way of learning. We have to be given a chance to learn and express ideas in our classes. The classes are not offered because it is a problem finding qualified professors to teach courses relevant to the African American experience.¹⁰

I believe if there were more Black professors, there would be more Black courses. I do not know why there are not more African American professors.¹¹

7 Interview #6 (Eric, twenty-one year old senior)
8 Interview #3 (John, twenty-four year old senior)
9 Interview #8 (Jaquan, twenty-two year old senior)
10 Interview #9 (Anthony, forty-six year old sophomore)
11 Interview #10 (Robert, twenty-four year old senior)

The viewpoints of the selected respondents touched on the following areas: (1) a lack of African American college professors; (2) the reluctance of existing faculty members to discuss issues, i.e., those that are considered controversial and relevant to Black male students, such as racism, affirmative action, white supremacy, etc.; (3) a lack of classes that focused on the encounters faced by Blacks. The previously mentioned interests reverberate throughout the literature on Black students who attend predominantly White colleges (Ancis et al. 2000; Robertson et al. 2005). Moreover, among the sentiments articulated is the need of Black professors who can serve as viable role models to Black male students. African American faculty members have been shown to facilitate positive social adjustment for African American male students, which is correlated with academic success (Cuyet 1997; Edelin-Freeman 2004).

Typecasting

The fourth and final dimension of Feagin's (1998) typology is typecasting. Typecasting entails an adherence to the stereotypical notion that all Blacks are alike and possess similar disdainful characteristics. Many scholars (Feagin 1998; Fleming 1984; Gallien and Peterson 2005; and Tinto 1993) postulate that stereotypes associated with black students upon entering the white college environment are primarily negative. Along these lines, it is important to note that a knowledge of negative stereotypes, as they pertain to black students' behavior and academic aptitude, can be surmised as contributing to what Steele (1999) refers to as stereotype threat. Stereotype threat is the idea that when African American students are placed in a situation, be it having to take a test or in a social setting, in which their abilities/competence is evaluated by whites, they often will underperform. Therefore, when black male students enter the white college environment where an existing negative view of them abounds, it can contribute to a milieu that is academically inhospitable and not conducive for that student's successful matriculation at that institution. In this regard, the responses below were analyzed and fall under the rubric of typecasting:

I think that we have hidden racism on campus. It is hidden during the day. At night, you have more African American students and the campus sincerely does not act pleasantly toward students. This is because most of the students that stay on campus are black. In other words, there is more racial profiling. At night, a police officer will stand at the gates to the dorms and card all of the black

students who enter and leave the dorms mainly because there are primarily black students in the dorms at night.¹²

I think that the police (local, non-campus) could be friendlier. However, I am talking about the local police, not the campus police.¹³

The above responses express the sentiment that the typecasting of African American students remains hidden. More specifically, Black male students perceive that campus police officers treat black students in an unfair manner, consistent with negative stereotypes (Gallien, Jr. and Peterson 2006). Person and Christensen (1996) promulgate the idea that Black/African-centered campus organizations can serve as cultural buffer zones to typecasting and other negative portrayals/representations of Black students on predominantly White campuses. To further elucidate the impact of typecasting, Feagin et al. (1996) alludes to the fact that Black students attending predominantly White colleges in the south and southwestern United States are often perceived as “affirmative action students or athletes, with no allowances for other possibilities” (p. 152). Consequently, it can be discerned that Black males in general, and Black students in particular with their lower overall rates of academic success vis-à-vis their Black female counterparts, face a special set of circumstances in conjunction with the typecasting they experience at predominantly White colleges.

Discussion

The purpose of the present study, using Feagin’s (1998) model as a point of departure, was to identify the factors that can best predict academic success for Black males who attend predominantly White colleges. The motivation for this study is a desire to develop policies to improve the college graduation rates of Black males in general, but more specifically, those who attend predominantly White colleges. The latter is a major concern, since most Black males attend predominantly White colleges (Gallien, Jr. and Peterson 2005). However, despite the fact that more Blacks attend White colleges, historically Black colleges and universities graduate a higher proportion of Black students in general, and Black males in particular (Gallien, Jr. and Peterson 2005).. It is hoped that this foray into Black male college student matriculation will encourage subsequent studies

12 Interview #6 (Eric, twenty-one year old senior)

13 Interview #1 (Steve, twenty year old sophomore)

to seek answers to the perplexing issues of Black males who embark upon their intellectual sojourn at predominantly White collegiate institutions.

The findings in this study affirm those that have been found in earlier studies (e.g., Robertson et al 2005; Schwitzer et al. 1999; Simms et al. 1999). More specifically, this study, which employs Feagin's (1998) theory of cumulative discrimination to tease out the factors correlated with academic success, emphasizes the importance of collegial faculty/student relations, understanding and dealing with racism, and extra-curricular activities and programs. The aforementioned variables, which were identified via Feagin's (1998) tenets of aggression, exclusion, including ostracism, dismissal of subculture, and typecasting, should serve as a starting point for the formation of any programs designed to increase Black male student graduation rates at predominantly White colleges.

There are several limitations that must be considered when scrutinizing the efficacy of this study. First, the selection of a mid-sized, regional university in the South must be examined because the South has historically been known to be less inclusive and more racially hostile than other regions of the United States (Feagin et al. 1996; Karenga 1993). Second, the researchers selected respondents via convenience, i.e., snowball, sampling method. This means that the findings from the Black males' responses cannot be generalized to the larger population of Black male students who attend Black colleges. Finally, a comparison group of Black female students was not part of the study. A Black female control group would have helped to discern whether or not the factors associated with Black male academic success were peculiar to Black males only.

Linkages between Data and Existing Theory

In the area of black student academic success in general, and Black male academic success in particular while attending predominantly White colleges, relevancy was given to the theme of social adjustment and its related variables. Why? This occurs because the variables that serve as determinants of social adjustment are also most commonly coupled with academic success in the prevailing literature (Robertson et al. 2005; Simms et al. 1993; Tinto 1993). The theme of student social adjustment, as it relates to academic success, has been explored via student integration and student institutional fit models (Murguia et al. 1991; Nora and Cabrera 1996a; Tinto 1993). The adjustment and academic success literature have emphasized the variables of faculty involvement, financial assistance,

classroom environment, academic and support services, extra-curricular activities, and understanding and dealing with racism (Ancis et al. 2000; Robertson et al. 2005; Simms et al. 1993; Tinto 1993). Further, there is a dearth of theoretical formulations that directly address this phenomenon. The lack of theories that have directly addressed this phenomenon, notwithstanding several prominent scholars (Allen 1991; Feagin 1998; Fleming 1984; Tinto 1993), along with countless others, have consistently written on this topic while posing challenging questions to the scholarly community. Two examples of theories that have been applied to examinations of African American student adjustment in general, and Black male academic achievement in particular, that were most applicable to this study are Tinto's (1993) institutional fit approach and Johnson's (2001) Afrocentric development theory.

Tinto's (1993) student-institutional approach or retention theory, asserts that student attributes, i.e., social capital, work to form individual goals and commitments. The previously mentioned goals and commitments interact over time with individual institutional experiences (both formal and informal). Moreover, the student's level of involvement in the formal and informal academic and social systems of the of the institution accounts for his or her decision to leave college. Put more succinctly, the social capital possessed by the Black male influences his goals and commitments, which in turn determines the level and nature of the student's participation in the institution's formal and informal social systems which culminates in the student's decision to stay or leave the White college.

Tinto's (1993) theory supports many of the assertions made in Feagin's (1998) theory of cumulative discrimination. First, Tinto (1993) places primacy on the individual's social capital as the foundation for the formation of the student's goals and commitments, which ultimately play a big part in the decision to stay or continue in college. The aforementioned corresponds with Feagin's (1998) notion of typecasting. Typecasting involves the presumption that all Blacks are alike in a negative way (Feagin 1998). For that reason, when Blacks are viewed stereotypically, the idea is promulgated that they are underprepared for college. Conversely, when African American males display characteristics that debunk negative caricatures, i.e., clearly setting goals and exhibiting a commitment to achieving them, they are more likely to continue and be successful in the White collegiate milieu.

A second connection between the theoretical formulations of Tinto (1993) and Feagin (1998) emerges with an assessment of Tinto's (1993) stress on the student's institutional experiences. This area of Tinto's (1993) theory contends that the student's goals and commitments interact with student's formal (with faculty and administrators) and informal (social activities at the university) institutional experiences to determine if the student will continue at the predominantly White institution. This concept of Tinto's (1993) typology correlates with Feagin's (1998) tenet of exclusion, including ostracism. The principle of exclusion, including ostracism surmises that if the student is made to feel as an outsider in the university environment, be it is social or structural (e.g., relationships with administrators), the student is less likely to be successful academically.

Johnson's (2001) Afrocentric student development model draws its basic precepts from the Nguzo Saba. Credited to African-centered scholar Dr. Mualana Karenga (1993), the Nguzo Saba encompasses the principles of the African American holiday of Kwanzaa. According to Johnson (2001) the Nguzo Saba "allows for the incorporation of authentic African American values into the development of African American college students" (p. 417). Hence, it places prominence on what Black students say about themselves as they attempt to navigate the tumultuous terrain of the White college. Most importantly, Johnson's (2001) Afrocentric student development model places primacy on the student's adjustment as a determinant of black student success. Consequently, Johnson's (2001) model transcends theories of Black student matriculate that are rooted in European-psychology (Robertson et al. 2005).

Johnson's (2001) Afrocentric student development model underscores the importance of the development of an African-centered ideology. An understanding of such can be implemented to cope with racism, discrimination, and social isolation, all of which have been identified as barriers to academic success (Simms et al. 1993; Tinto 1993). This notion finds saliency in two of Feagin's (1998) tenets, dismissal of subculture and aggression. Feagin's (1998) dismissal of subculture posits that the effects of discrimination will be compounded when African American males encounter a devaluation of their norms, values, and folkways. Therefore, if the Black male student is within a white college backdrop that affords him the opportunity to develop an African-centered ideology to serve as a buffer to the dismissal of subculture, academic success will be possible. The second tenet of Feagin's (1998) typology is aggression. Aggression

suggests that if the Black male student encounters verbal or physically aggressive statements or acts (e.g., terroristic threats, insults, slights, etc.), then he is less likely to achieve scholastic success. Although the bond between this theoretical precept and Johnson's (2001) Afrocentric student development theory is more tenuous, it can be definitively discerned. For instance, if the Black male student is able to cultivate an African-centered ideology, according to Johnson's (2001) construct, it is plausible to assume the possible harm caused by "aggression" will not be capricious enough to inhibit academic progress.

In summary, the linkages between Feagin's (1998) cumulative discrimination theory as a paradigm for the examination of Black male academic achievement and existing theoretical formulations mentioned in this section are tenuous. The aforementioned is not intended to suggest that this brief synopsis elucidates every possible connection that can be made with Feagin's (1998) theory and existing data. This extraction represents an attempt to reveal some of the more useful associations that Feagin's (1998) paradigm has with theoretical formulations that were practical in this study.

Recommendations

Overall, according to Gallien Jr. and Peterson (2005), in order to increase the retention rates of African American males who attend predominantly White colleges, the following suggestions should be considered:

- (1) Precollege programs that emphasize study skills, resource acquisition, i.e., how to acquire financial aid, counseling services, mentoring, working study jobs, etc.
- (2) Make earnest and sincere efforts to recruit African American faculty and staff along with the implementation of social adjustment programs initiated by the university that address the unique needs of African American males in predominantly White college settings.
- (3) The addition of courses that are part of the university's core curriculum and that address the needs of Black people throughout the Diaspora. Why? The benefits of the inclusion of such courses are numerous. First, the courses will peak the interest of Black males that show a desire to have the option to take such courses.

An ancillary or related advantage is that the supplement of such course material demonstrates that the university recognizes and acknowledges the plight of Black males who attend a predominantly white institution in a white dominated, patriarchal society. Finally, classes that focus on the experiences of Black people can only increase the self-esteem and educational achievement of black males who greatly need to be informed that they are just as capable of finishing school and being successful in life as their White male counterparts are.

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