Participation in School Sports: Risk or Protective Factor for Drug Use Among Black and White Students?

Marvin P. Dawkins  
University of Miami  
Mary M. Williams  
Florida Memorial University  
Michael Guilbault  
Howard University

This study examined the relationship between participation in school-based sports and drug use among Black and White high school students, using data from participants in the National Educational Longitudinal Survey of 1988 (NELS, NCES, 1988) and follow-up surveys in 1990 and 1992. While previous research produced inconsistent results, the present study revealed that participation in school-based sports was associated with a reduction in cigarette and marijuana use, thus, serving as a protective factor for Black and White students. However, the protective role of sports involvement for alcohol use was present only among Black females. Participation in sports was associated with an increase in alcohol use (serving as a risk factor) among White males and females and Black males (after controlling for conventional predictors of alcohol use in adolescence). Implications for expanding the role of sports as a potential school resource in drug use prevention planning are discussed.

INTRODUCTION

The widespread interest and participation of our nation's children and adolescents in sports at school and in the community have been met with mixed reactions. Involvement in sports can contribute positively to the overall development of young people in terms of both health and social benefits (Braddock, 1989). Yet, the widespread appeal of sports has been a target for critics who argue that an overemphasis on athletics, especially among many African American and inner-city youth, can lead to underachievement in academics. For example, despite tremendous odds against reaching professional athletic status, many young people who hold such aspirations may devote little time and effort preparing for alternative careers requiring abilities and skills gained through successful academic performance. For this reason and others, debates over school reform have often included interscholastic athletic programs among school activities targeted for curtailment or termination when proposals are made for curriculum change and fiscal trimming. Although defenders of school-based athletics allude to the potential benefits of sports in addressing educational and social problems faced by some students, empirical evidence to support such claims is often absent. The belief that school-based athletics are expendable since they are part of the extracurricular activities rather than the regular academic curriculum of schools provides the central basis for cutting school-based athletic programs and overshadows considerations of sports as a potentially positive social intervention. Therefore, policy debates over the appropriate place for athletics in educational reform are usually not informed by extensive research and empirical evidence to support the assumption that participation in sports is relatively less important than other aspects of school organization in contributing to the development of students in ways that promote student success in school and life.

Among the unexplored issues where research may inform policy decisions is the potential benefit of school sports in the primary prevention of risky behaviors. For example, substance
abuse in the school setting is a significant correlate of academic failure, absenteeism, dropout rate, and delinquency (Fagan & Pabon, 1990; Kandel, Simcha-Fagan, & Davies, 1986; Newcomb, Maddahian, & Bentler, 1986; Paulson, Coombs, & Richardson, 1990; Swadi, 1992). Therefore, if participation in school sports lowers the risk of drug use, then indirect benefits to student success will be achieved. However, an important question related to sports in the search for alternative activities to achieve the aim of preventing drug abuse is whether participation in school-based sports serves as a risk or protection against involvement in drugs. This question is particularly important to address in the context of school reform since supporters argue that participation in school-based sports may serve as a “protective” factor, which reduces risks of drug-related problems, thus, establishing a direct role for sports involvement to play in facilitating overall academic success. Although a small body of evidence has been produced by previous research on the relationship between participation in interscholastic athletics and drug use, the findings have been inconsistent, with some studies indicating that athletes are less likely to use drugs than non-athletes (Escobedo, Marcus, Holtzman, & Giovino, 1993; Hayes & Tevis, 1977; Shields, 1995; Tec, 1972), while other studies revealed either greater drug use by athletes or no difference between sports participants and non-participants (Carr, 1990; McGraw, Smith, Schensul, & Carrillo, 1991). The inconsistency in findings is due to factors such as differences in specific substances studied, methodological artifacts (including differences in sample size), representativeness, composition, and changes in drug-use behavior among students at different time periods. The purpose of the present study is to address the question of whether participation in school-based sports served as a barrier to involvement in drugs or facilitated drug use among students who participated in a nationally representative, longitudinal survey. Specific objectives of the study are

- to examine the association between sports participation and the use of drugs (i.e., cigarettes, alcohol, and marijuana) among students in their senior year in high school;
- to make race-gender comparisons (i.e., African American and White males and females);
- to assess the effect of participation in interscholastic athletics in high school on drug use relative to the effects of other known predictors of drug use in adolescence; and
- to discuss the implications of this analysis for the question of whether participation in school sports has value beyond athletics in terms of serving as a protective factor in drug use prevention.

**REVIEW OF RELATED LITERATURE**

Few studies have provided direct evidence of whether youth who participate in sports are less likely to engage in deviant behavior than non-participants. As a notable exception, Coakley (2004) cites a unique study by Trulson (1986), which employed a tightly controlled experimental design and found that delinquent adolescent boys who were exposed to a highly regimented sports-based treatment program involving martial arts showed improvements, while those who simply played basketball and football without coaching or other teaching revealed no changes on delinquency and personality measures. Just as the widely popularized movement of the early 1980s to “just say no” to drugs was not sufficient to achieve the goal of primary prevention, the implication of the Trulson experiment was that engaging in sports alone is not a “cure” for deviant behavior. Instead, the elements necessary for participation in sports to be effective as a prevention mechanism involve an environment where organized sports activity includes explicit teaching of anti-deviance. In addition to the school environment, the family and community are the other environmental contexts in which alternative climates for promoting positive involvement of youth in a variety of anti-drug activities must be created as part of an overall social environmental approach to drug abuse prevention (Norman & Turner, 1993). However, it is also possible that sports participation may promote drug use, especially for substances that are associated with particular sports (e.g., smokeless tobacco and, more recently, steroids in baseball) or through the negative role modeling behavior of influential athletes. In the small body of research produced on this issue, the evidence is mixed. Some studies show that high school athletes are less likely to use and hold favorable attitudes toward the use of drugs (Escobedo, Marcus, Holtzman, & Giovino, 1993; Hayes & Tevis, 1977; Shields, 1995; Tec, 1972), while other research reveals that athletes
are more likely to use drugs than their non-athlete counterparts (Carr, 1990; McGraw, Smith, Schensul, & Carrillo, 1991). Some of the inconsistent findings may reflect differences in study design (e.g., small non-probability samples versus large, nationally longitudinal, probability samples) and other data limitations.

There is also evidence that the correlation between athletic participation and drug use depends on which substance is 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 & 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, & 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 report less use than Whites and other minority youth, and urban-rural variations have also been found (Dawkins, 1986, 1996; Johnson & Marcos, 1988; Maddahian, Newcomb, & Bentler, 1986; Warheit, Biafora, Zimmerman, Gil, Vega, & Apostori, 1995).

In a study of the effect of athletic participation on sexual behavior in adolescence, Miller, Sabo, Farrell, Barnes, and Melnick (1998) offered a generally stated rationale, which helps to clarify inconsistencies in the literature and formulates the logic behind the expectation that athletic participation will reduce involvement in drug use and other risky behaviors. Miller and colleagues (1998) suggested four benefits to participating in school sports: (a) enables adolescents to be constructively engaged in activities, which provide acceptable alternatives to risky behavior; (b) fills time slots with regularly scheduled activities; (c) leads to affective attachment to coaches and teammates which helps to suppress involvement in many deviant activities; and (d) 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. Since the literature reveals few studies which employed a large, nationally representative sample, while focusing on the most widely used substances in adolescence (i.e., cigarettes, alcohol, and marijuana) and taking into account, ethnicity, gender, and other known predictors of drug use as part of the same study, the present study fills a gap in the research literature on the effects of participation in sports. The authors shall address the shortcomings of previous research by analyzing data from a large-scale, ongoing survey of young people that was initiated in 1988, when the students were eighth graders and has followed them through high school and into early adulthood.

**METHODOLOGY**

**Data**

Data for this study are from the National Educational Longitudinal Survey (NELS) of students initiated in 1988 by the U.S. Department of Education's National Center for Education Statistics (NCES), which conducted follow-ups in 1990, 1992, and 1994. The base-year design in 1988 used a two-stage procedure to select a nationally representative sample of schools containing eighth graders and a random sample of eighth grade students within each of the selected schools. In-school surveys were taken for students in the base year (1988), with the first follow-up survey conducted in 1990, when the students reached tenth grade, the second follow-up survey conducted in 1992, when the students reached twelfth grade, and a third follow-up was two years later (1994) for a smaller subsample of the original sample. Parents, teachers, and school administrators were also surveyed. The base-year survey included 24,599 eighth grade students in 1,052 participating schools with over 90% of the base-year respondents retained in the first and second follow-up.
surveys. Data for the present analysis are taken from the base year (8th grade), first follow-up (10th grade) and second follow-up (12th grade) surveys.

**Variables**

The specific variables included in this analysis were measured as follows:

**Sports Participation.** Sports participation is a composite measure of the number of years a student played any varsity sports in the 10th through the 12th grade ranging from 0 to 3 years.

**Drug Use.** Drug use is based on the number of occasions during the 12th grade year that the student used each of these specific substances: cigarettes, alcohol, and marijuana. The response categories for each of these drug use substances constitute a 4-point scale with “none” = 0, “1-2 occasions” = 1, “3-19 occasions” = 2, and “20+ occasions = 3.”

**Early Substance Abuse.** Early substance use is a measure of the extent of cigarette smoking by a student during the 8th grade. The response choices are the same as the drug use measurements described above.

**School Dropout Risk.** School dropout risk is an index of risk developed by NCES to measure the risk of dropping out of high school after controlling for socioeconomic status (SES) and race/ethnicity. The summated index combines six indicators of risk: (a) lowest SES quartile, (b) single parent family status, (c) older sibling having dropped out of school, (d) respondent changed school two or more times, (e) average grades of C or lower from 6th to 8th grade, and (f) repeating a grade. Possible scores range from 0 (no risk) to 6 (exhibiting all risk factors).

**Family Member Drug Use.** Family member drug use is a dummy-coded measure where 1 = family member used drugs over the last two years and 0 = no family member used drugs during that time.

**Peer Values.** Peer values is a measure that draws on peer cluster theory (Oetting & Beauvais, 1986). Peer clusters differ from the broad concept of peer influence in that they consist of best friends who share values and attitudes and establish norms to determine actions of group members including drug-use behaviors. The index of peer values constructed for this analysis measures positive attitudes toward education among peer cluster group members. The items in the scale include the importance to friends of studying, getting good grades, finishing high school, and continuing education past high school. The scale ranges from 0 to 5.

**Religious Identification.** Religious identification is a measure of a person’s identification with religion at a personal level. This dummy variable is coded 1 for “thinks of him/herself as a religious person” and 0, if not.

**Race.** Race is identified as 1 = African American/Black and 2 = White.

**Sex.** Sex is measured as 1 = male; 2 = female.

**Results and Discussion**

The analysis focuses on assessing the extent to which sports participation in high school is associated with drug use (i.e., cigarettes, alcohol and marijuana) and the relative effect of sports participation after other known predictors of drug use are taken into account. In the first part of the analysis, zero-order correlation coefficients are reported (Pearson’s r and the t statistic as a test of significance) to describe the association between drug use and sports participation. Positive and
negative correlations indicate that sports participation operates as “risk” or “protective” factors, respectively.

In the second part of the analysis, multiple regression techniques are used to examine the effect of sports participation on drug use relative to other known predictors (i.e., early initiation of substance use, involvement in drugs by family members and school dropout risk) and other factors (i.e., peer values and religious identification). In both parts of the analysis, the analytical techniques are applied separately for race-gender subpopulations (i.e., Black males, Black females, White males, and White females).

Sports Participation as a Correlate of Drug Use

The results of the correlation analysis are reported in Table 1. A pattern that emerges from this analysis, which supports the “sports as a protective factor” view, is the consistently negative association between sports participation and both cigarette and marijuana use. As shown in the bottom panel of Table 1, for each race-gender subgroup, the number of years that students participated in varsity sports between the 10th and 12th grade is correlated with less use of cigarettes (Black males $r = -.23$; Black females $r = -.14$; White males $r = -.15$; White females $r = -.11$) and marijuana (Black males $r = -.12$; Black females $r = -.10$; White males $r = -.08$; White females $r = -.04$). However, this pattern does not hold for alcohol, where participation in sports is correlated with more use for White students (White males $r = .04$; White females $r = .06$) and less use for Black students (Black males $r = -.04$; Black females $r = -.12$). This indicates that sports participation tends to operate as a risk factor for alcohol use among White students, while serving as a protective factor for Black students.

Another pattern that emerges (as indicated by the size of the correlation coefficients) is a stronger association between sports participation and cigarette use than either alcohol or marijuana use, with the coefficients being larger for Black males ($r = -.23$) in comparison to White males ($r = -.15$) and Black females ($r = -.14$) compared to White females ($r = -.11$). This indicates that sports participation as a protective factor against cigarette smoking is stronger for African American students than their White counterparts. It should be further noted that, with the exception of Black females ($r = -.12$), the relative size of the coefficients for the correlation between sports participation and alcohol use in each of the race-gender groups indicated that these associations were the weakest overall.

As expected, other important correlates which tend to operate as risk factors for drug use across most of the race-gender subgroup are early substance use, school dropout risk and family members’ drug use, with peer values, and identification with religion operating as protective factors. In summary, the results of the correlation analysis tend to provide empirical evidence to support the view that involvement in sports is associated with reducing drug use among high school students (Leventhal & Keeshan, 1993). The race-gender breakdowns highlight the greater protective role of sports participation in reducing drug use for Black females and males. These findings are based on bivariate correlations and do not take into account other factors that may account for these associations when introduced as control variables.

Relative Importance of Sports Participation as a Predictor of Drug Use

Multiple regression analysis was employed to assess the extent to which the effect of participation in school sports on drug use persists after other known predictors of drug use are included in the analysis. This enables us to examine the direct effect of sports participation in predicting drug use relative to more conventional predictors found in the drug use research literature. The results of this analysis are presented in Table 2. Standardized regression ($\beta$) coefficients are reported (applying the $F$ statistic as a test of significance) from equations run separately for each race-gender sub-group (i.e., White males, White females, Black males, and Black females) within the specific substance categories (i.e., cigarettes, alcohol, and marijuana use).
Table 1
Correlation of Drug Use With Sport Participation and Other Variables
By Race and Gender

<table>
<thead>
<tr>
<th>Variable</th>
<th>Black Males</th>
<th>Black Females</th>
<th>White Males</th>
<th>White Females</th>
<th>Black Males</th>
<th>Black Females</th>
<th>White Males</th>
<th>White Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Product-Moment Correlation Coefficients</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cigarette Use</td>
<td>.26****</td>
<td>.21***</td>
<td>.24****</td>
<td>.15**</td>
<td>.01</td>
<td>.09***</td>
<td>.08***</td>
<td>.13**</td>
</tr>
<tr>
<td>Alcohol Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marijuana Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Dropout Risk</td>
<td>.03</td>
<td>-.05</td>
<td>.07***</td>
<td>.08***</td>
<td>-.03</td>
<td>.09**</td>
<td>.04*</td>
<td>-.02***</td>
</tr>
<tr>
<td>Family Member Drug Use</td>
<td>-.34***</td>
<td>-.01</td>
<td>.19***</td>
<td>.18***</td>
<td>.04</td>
<td>.18***</td>
<td>.14***</td>
<td>.15***</td>
</tr>
<tr>
<td>Peer Values</td>
<td>-.34***</td>
<td>.04</td>
<td>-.22***</td>
<td>-.18***</td>
<td>-.17***</td>
<td>-.08*</td>
<td>-.16***</td>
<td>-.13***</td>
</tr>
<tr>
<td>Religious Identification</td>
<td>-.01</td>
<td>-.02</td>
<td>-.09***</td>
<td>-.13***</td>
<td>-.04</td>
<td>-.12**</td>
<td>-.10***</td>
<td>-.17***</td>
</tr>
<tr>
<td>Sports Participation</td>
<td>-.23***</td>
<td>-.14***</td>
<td>-.15***</td>
<td>-.11***</td>
<td>-.04</td>
<td>-.12**</td>
<td>.04*</td>
<td>.06**</td>
</tr>
</tbody>
</table>

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

The results show that, with few exceptions, the effect of participation in sports tends to persist as a protective factor after other variables are included in the analysis. The most consistent effect of sports participation’s persistence in reducing drug use after controlling for the conventional drug use predictors occur for cigarette use (β coefficients for: Black males = -.16, Black females = -.05, White males = -.10, and White females = -.08). For marijuana use, sports participation shows greater persistence among Black students than Whites. Among the exceptions, after controlling for more conventional predictors of drug use, the effect of sports involvement on alcohol use among Black males (β = .08) tended to conform to the pattern found for White males (β = .08) and White females (β = .08), which showed that, in operating as a risk rather than as a protective factor, participation in school sports increased alcohol use. Another exception is the negligible effect of sports participation in reducing marijuana use among White females after controlling for other factors (β = -.01). Black females are the only race-gender subgroup where participation in school sports had a significant direct effect as a protective factor for the use of all three substances (cigarettes: β = -.05, p < .05; alcohol: β = -.10, p < .05; marijuana: β = -.08, p < .05).

Relative to other predictors, factors identified in previous research (Dawkins, 1996) tend to be stronger than participation in sports in their effect on drug use among the adolescents in this study. However, given the powerful impact of these predictors, especially early substance use, family member drug use and peer influence, the persistent (direct) effect of sports participation as a protective factor is noteworthy. It should also be noted that in this analysis, three predictors, which can be considered “risk” factors (i.e., early substance use, school dropout risk, and family member drug use), were employed, along with three “protective” factors (i.e., peer values, religious identity, and sports participation). Among these variables, peer values, which is a more broadly defined measure of positive peer influence than the usually more narrowly defined negative peer influence measure, had a stronger relative effect as a protective factor (except for cigarette use among Black females) than is usual in this type of analysis. Therefore, the assessment of the relative importance of sports involvement over and above the effects of more conventional risk.
and protective factors in drug use was a strict and conservative test of whether sports participation contributes new understanding in the search for potentially relevant protective factors in adolescent drug use prevention.

Table 2

Regression of Drug Use on Participation in Sports and Other Predictors

<table>
<thead>
<tr>
<th>Drug Use/ Substance</th>
<th>Race/ Sex</th>
<th>Early Substance Use</th>
<th>School Dropout Risk</th>
<th>Family Member Drug Use</th>
<th>Peer Values</th>
<th>Identification With Religion</th>
<th>Sports Participation</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cigarettes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>.24***</td>
<td>.02</td>
<td>.14**</td>
<td>-.31***</td>
<td>.06</td>
<td>-.16**</td>
<td>.21</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>.04</td>
<td>-.06</td>
<td>.00</td>
<td>.05</td>
<td>-.02</td>
<td>-.05**</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Black Females</td>
<td>.19***</td>
<td>.01</td>
<td>.16***</td>
<td>-.16***</td>
<td>-.04*</td>
<td>-.10***</td>
<td>.12</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.21***</td>
<td>.00</td>
<td>.14***</td>
<td>-.14***</td>
<td>-.09**</td>
<td>-.08***</td>
<td>.12</td>
</tr>
<tr>
<td>Alcohol</td>
<td>Black</td>
<td>.14*</td>
<td>-.02</td>
<td>.05</td>
<td>-.17**</td>
<td>-.01</td>
<td>.08</td>
<td>.04</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>.01</td>
<td>.05</td>
<td>.16***</td>
<td>-.07</td>
<td>-.10*</td>
<td>-.10*</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Black Females</td>
<td>.07**</td>
<td>.01</td>
<td>.12***</td>
<td>-.13***</td>
<td>-.08*</td>
<td>-.08***</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.06**</td>
<td>-.06**</td>
<td>.15***</td>
<td>-.12***</td>
<td>-.15**</td>
<td>-.08***</td>
<td>.07</td>
</tr>
<tr>
<td>Marijuana</td>
<td>Black</td>
<td>.12*</td>
<td>.04</td>
<td>.22***</td>
<td>-.05***</td>
<td>-.11*</td>
<td>-.10*</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Males</td>
<td>-.03</td>
<td>-.05</td>
<td>.27***</td>
<td>-.17***</td>
<td>-.13**</td>
<td>-.08*</td>
<td>.13</td>
</tr>
<tr>
<td></td>
<td>Black Females</td>
<td>.12***</td>
<td>.02</td>
<td>.29***</td>
<td>-.11***</td>
<td>-.10**</td>
<td>-.03*</td>
<td>.15</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.08***</td>
<td>-.02</td>
<td>.30***</td>
<td>-.15***</td>
<td>-.14***</td>
<td>-.01</td>
<td>.16</td>
</tr>
</tbody>
</table>

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

CONCLUSION

This study examined the relationship between sports participation and drug use among Black and White high school students using data from the National Educational Longitudinal Survey of 1988 and follow-ups in 1990 and 1992. The specific aim was to assess whether participation in school sports served as a protective or risk factor for tobacco (cigarette), alcohol, and marijuana use. Overall, the findings revealed that sports participation tends to be associated as a protective factor with cigarette and marijuana use among all of the race-gender subgroups. Participation in school sports served as a protective factor for alcohol use only among Black females, while operating as a risk factor among Black males and White males and females. When more conventional predictors of drug use are introduced into the analysis, this protective function of school sports participation persists, although more conventional predictors of drug use in adolescence appear to be more powerful in their relative effect. Nevertheless, this study provides empirical evidence to support the argument that school sports have value beyond the role of providing extracurricular activities. Given the findings of this study, the participation by youth in interscholastic athletics should be seen as a potentially important protective activity to prevent drug use (with a few exceptions), which, in turn, contributes to reducing absenteeism, dropouts, and ultimate student failure. Interestingly, sports participation's protective function against drug use was more powerful and consistent for African American students (especially females) than their White counterparts, suggesting the need to reconsider the targeting of interscholastic athletic programs for cutbacks in
schools with high concentrations of Black students, which is often the case in many urban school districts across the United States.

However, a caution should be made against viewing sports as a cure for adolescent deviant behavior. As Coakley (2004) pointed out, positive results from participation in sports can be expected only for certain sports and when accompanied by explicit teaching that meets specified objectives, such as the case of the experiment involving martial arts (e.g., a philosophy of nonviolence, self-respect, and respect for others, fitness and self-control, confidence in one’s physical skills, and a sense of responsibility (Coakley, 2004). In addition, while participation in school sports may provide an environment for meeting criteria such as the above, schools represent only one of three social environmental contexts for cultivating sport as an activity for preventing drug use and other risky behaviors. The other environments where sports participation can be linked to the development of an overall strategy to achieve specific prevention outcomes include the family and the community. Negative influences (i.e., risk factors) within each of these contexts must be countered by alternative activities that are consciously and deliberately planned with the objective of preventing or reducing drug use and other risky behavior. The present study indicates that more attention should be given to developing and expanding the role of sports as a school resource in drug use prevention.

REFERENCES


AUTHORS
MARVIN P. DAWKINS is Professor, Department of Sociology, University of Miami, Coral Gables, Florida.
MARY M. WILLIAMS is Assistant Professor of Sociology, Division of Social Sciences, Florida Memorial University, Miami, Florida.
MICHAEL GUILBAULT is a doctoral student in the School of Education, Howard University, Washington, DC.

All comments and queries regarding this article should be addressed to: mdawkins@miami.edu.