

THE EFFECTS OF ATHLETIC PARTICIPATION ON ACADEMIC
ACHIEVEMENT AND SOCIAL STATUS

by

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ABSTRACT

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Over the past four decades there has been a continuing debate about the effects of athletic participation on academic achievement. It has become a more relevant issue now that there are budget constraints in our nation's schools. A study of the effects of athletic participation is needed to inform educators of the importance of athletics before they decide to retain or eliminate athletic programs. This research project includes a review of the literature regarding the effects of athletic participation on academic achievement. It also examines the gender differences related to athletic participation at the high school level. The results of past research indicate that athletic participation does have positive effects on academic achievement, as well as positive effects in other areas such as self-esteem, social status, and future success in education. There also appears to be many differences in the effects of athletic participation between males and females, particularly with regard to social status attributions.

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CHAPTER 1

Introduction

A continuing debate about the effects of athletic participation on academic achievement has occurred since the 1960's. It has become an even bigger issue now that there are budget constraints in our nation's schools. Decision makers often find it easy to cut athletic programs because they believe sports are not overly important in the academic arena. In the late 1980's, Holland and Andre (1987) argued that many secondary schools eliminated some of the extracurricular programs based solely on financial grounds without considering the empirically based knowledge of the positive effects of these programs on adolescent development. It is obvious that decision makers need to be well informed about the impact of athletics on academics before they decide to retain or eliminate them.

A review of the literature shows that athletic participation can enhance, rather than decrease, academic achievement (NFHS, 2002). The National Federation of State High School Associations (NFHS) and its membership assert that interscholastic sports promote citizenship, sportsmanship, lifelong lessons, teamwork, self-discipline, and facilitate the physical emotional development of our nation's youth. NFHS stated that, "students who participate in activity programs tend to have higher grade-point averages, better attendance records, lower dropout rates and fewer discipline problems" (NFHS, 2002, p. 2).

Eppright, Sanfacon, Beck, and Bradley (1997) also examined the importance of athletics during childhood and adolescent development. They argued that participating in

athletics “encourages the development of leadership skills, self-esteem, muscle development and overall physical health” (Eppright et al., 1997, p. 71).

Athletic participation also may help at-risk students and other students who have academic difficulties, both during high school and in higher education. Holloway (2002) found that educators believe that athletic participation reduces the probability of school dropout by approximately forty percent. Involvement in these activities was perceived by educators to support at-risk students by maintaining, enhancing, and strengthening the student-school connection (Holloway, 2002).

Mahoney and Cairns (1997) argue that extracurricular participation decreases the tendency to drop out because it gives those students at-risk an opportunity to create a positive and voluntary connection to the educational institution. Snyder and Spreitzer (1990) found a greater percentage of students who participate in high school athletics went to college compared to students who did not participate in athletics. The Snyder and Spreitzer (1990) study also concluded that the positive effect of athletic participation on college attendance was more evident among students with lower levels of cognitive development.

Although there is some evidence that athletics can enhance the academic performance for students in general, there may be some major differences between males and females when it comes to the effects of athletic participation. Males often find that athletic participation brings them popularity; however, that is often not the case for females (Kane, 1988). In the late 1980’s, Kane (1988) found that females attained different status attributions depending on the type of sport. In the Kane study, females associated with sex-appropriate sports (such as tennis, volleyball, and golf) received

significantly greater status than females who were associated with sex-inappropriate sports (such as basketball and softball). Kane (1988, p. 253) concluded that, “social assessments made about female sport participation within high school status systems remain heavily influenced by traditional beliefs regarding feminine, ‘ladylike’ behavior.”

Desertrain and Weiss (1988, p. 578-579) stated:

team sports have been considered less socially acceptable for the female athlete because they require behaviors traditionally accepted of the masculine role, but not the feminine role, such as bodily contact and the use of heavy objects. Hence, it is understandable that female athletes high in feminine orientation who participate in traditional masculine activities perceive their participation to be more in conflict with their predominant orientation toward femininity.

To conclude, previous results support the notion that the meaning of sports participation may not be the same between male and female athletes (Desertrain & Weiss, 1988).

Statement of the Problem

Previous research has shown that athletic participation can enhance the academic achievement of student athletes at the high school level. However, Coleman’s (1961) zero-sum model suggests that students who put their energies into sports are less likely to pursue academic objectives. He believes that youth do not have time or energy to achieve excellence and satisfaction in both roles (Coleman, 1961). Also, with current budget constraints threatening the existence of athletics, more research needs to be conducted so that educational decision makers can become informed about the role that athletics has in the educational experience for high school students. Furthermore, an

examination of the effects of athletic participation for male and female student athletes is needed.

Purpose of the Study

This literature review will examine the effects of athletic participation on academic achievement. It will attempt to determine whether athletic participation enhances the academic achievement of high school students. Further, the relevant literature will be examined to determine if there are gender differences related to athletic participation at the high school level.

Research Objectives

This paper will examine the relevant literature to address the following two research questions:

- 1) What is known about the effects of athletic participation for high school students?
- 2) What is known about the effects of athletic participation for male versus female high school students?

Definition of Terms

For clarity of understanding, the researcher will define the subsequent terms as follows:

Zero-Sum Model

A model, which indicates that more of one variable results in less of another. For example, more time involved in athletic participation leads to less time spent on academics (Marsh, 1992).

Status Attributions

Social roles of high school students, such as athlete or leader, that lead to higher social rank or position.

Activity Programs

High school programs, such as sports, music, speech, drama, and debate team, where young people learn lifelong lessons as important as those taught in the classroom.

CHAPTER 2

Review of the Literature

This chapter will discuss the research examining the relation between athletics and academics. The effects of participation for at-risk students and gender differences among athletic participants also will be discussed.

General Effects of Sports Participation

Many educators appear to support the idea that extracurricular activities, especially athletics, can enhance academic performance. The National Federation of State High School Association (NFHS) is a major supporter of athletics. NFHS and its membership assert that interscholastic sports promote citizenship, sportsmanship, lifelong lessons, teamwork, self-discipline, the physical development, and the emotional development of our nation's youth. NFHS stated that, "students who participate in activity programs tend to have higher grade-point averages, better attendance records, lower dropout rates and fewer discipline problems" (NFHS, 2002, p. 2). According to NFHS, students learn self-discipline, build self-confidence and develop the skills necessary to handle competitive situations. This organization argues these curricular goals are expected of the public schools so that students become responsible adults and productive citizens. According to NFHS, participation in high school activities is often a predictor of later success in life (NFHS, 2002).

NFHS uses several sources to support their views on athletic participation and athletics. In March 1996, the Carnegie Corporation of New York found that young people in sports experience multiple benefits. Their results indicated that, "at their best, sports programs promote responsible social behavior and greater academic success,

confidence in one's physical abilities, an appreciation of personal health and fitness, and strong social bonds between individuals and institutions" (NFHS, 2002, p. 3).

NFHS (2002) also cites a Minnesota State High School League survey of 4,800 high school students conducted in March of 1995. This organization found that 91% of those students said that students who participate in school activities tend to be school leaders and role models. Several students also noted that participation in school activities allowed them to experience opportunities for developing self-discipline, and those often were not available in the general classroom setting (NFHS, 2002).

In 1985, the NFHS sponsored another survey of high school principals in all 50 states. The survey was conducted by Indiana University and funded through a grant from the Lilly Endowment in Indianapolis. The results were as follows:

1. 95 percent of the principals believed that participation in activities teaches valuable lessons to students that cannot be learned in a regular classroom,
2. 99 percent of the principals agreed that participation in activities promotes citizenship,
3. 95 percent of the principals agreed that activity programs contribute to the development of "school spirit" among the student body,
4. 76 percent of the principals said they believe the demand made on students' time by activities is not excessive, and
5. 72 percent of the principals said there is strong support for school activity programs from parents and the community at large (NFHS, 2002, p. 4).

NFHS (2002) also reports results from a University of Colorado professor who conducted a study of nearly 22,000 students for the Colorado High School Activities

Association. In the spring of 1997, McCarthy collected his data from student participants in the Jefferson County high schools. He found that students who participated in interscholastic activities had “significantly higher” grade-point averages than students who did not participate in them. In the Jefferson County schools, an overall grade point average (GPA) of 3.093 was reported for students who participated in interscholastic activities, and only a 2.444 GPA was reported for the non-participating students. The Jefferson County schools won 39 state championships in the 1990’s in sports; and, according to NFHS, still maintained “superior” academic ratings (NFHS, 2002).

Other researchers found similar results. In an empirical study of 10,613 students, Marsh (1992) examined the effects of extracurricular activity participation on student growth and change during the final two years of high school. He used the large, nationally representative High School and Beyond (HSB) database from the National Center for Educational Statistics (NCES) to obtain his sample. Marsh (1992) correlated extracurricular activity participation with background variables (e.g., social economic status, race, gender, school-year size, and prior educational experiences), outcome variables from the sophomore and senior years (e.g., standardized achievement, GPA, coursework selection, self-concept, locus of control, absenteeism, getting into trouble, and educational and occupational aspirations), and postsecondary outcomes (e.g., occupational and educational attainment, and educational and occupational aspirations). The results suggested that extracurricular activity participation increases a student’s commitment to school, social and academic self-concept, educational aspirations, coursework selection, homework, academic achievement, and subsequent college attendance. Marsh (1992) also noted that the results contradict “zero-sum models” that

claim that total extracurricular activity participation detracts from more narrowly defined academic goals.

In the late 1980's, Holland and Andre (1987) reviewed the literature on extracurricular participation and adolescent development. These researchers looked at five areas and found that extracurricular participation was correlated with higher levels of self-esteem, involvement in political and social activities during young adulthood, improved race relations, feelings of control over one's life, lower delinquency rates, academic abilities and grades, and educational aspirations and attainments. Holland and Andre concluded that secondary schools that eliminated some of their extracurricular programs due to tightened budgets did not taken into consideration the empirically based knowledge of the positive effects of these programs on adolescent development.

Eppright, Sanfacon, Beck, and Bradley (1997) reviewed the literature on the importance of athletics during childhood and adolescent development. These researchers found that the literature supports the notion that sports participation is a necessary area of study as a health issue and a preventative tool. They concluded that play and sports (athletics) enhances the physical, mental, and social development of students during childhood and adolescence. The researchers also stated that participating in athletics “encourages the development of leadership skills, self-esteem, muscle development and overall physical health” (Eppright et al., 1997, p. 71).

In a secondary analysis of data from a national longitudinal survey of American high school students sponsored by the U.S. Department of Education, Spreitzer (1994) examined the relation between high school athletic participation and the subsequent psychosocial development of students. The data was collected through student

questionnaires (measuring social background and academic orientation), social psychological measures (such as self-esteem), and information taken from individual student files (such as test scores). The results showed that students who participated in varsity athletics had a higher socioeconomic family background, higher levels of cognitive ability as measured by standardized testing, higher levels of self-esteem, and higher academic grade averages. Those students who dropped out of athletics were more likely to drop out of other extracurricular activities. Conversely, those who continued to participate in athletics were more likely to take on additional activities besides sports. Finally, according to the Spreitzer study, the athletes were more likely to be in some type of educational institution two years out of high school, and they were more likely to obtain a baccalaureate degree within six years of graduation.

Research also has been conducted on the social psychological concomitants of adolescents' role identities as scholars and athletes. In another secondary analysis of data from a national longitudinal survey of American high school students sponsored by the U.S. Department of Education, Snyder and Spreitzer (1992) examined the attitudinal and behavioral correlates of scholar-athletes, pure scholars, pure athletes, and nonscholar-nonathletes of the males in the sample. These researchers used data from the questionnaire survey in the springs of the adolescents' sophomore and senior years. The results supported similar studies of school social structures where sports, academics, and extracurricular activities were important dimensions of social stratification in high school. Activity participation, like athletics, was important when it came to the social rankings of the students. There also was evidence of increased levels of self-esteem and a greater internal locus of control among the scholar-athletes (Snyder & Spreitzer, 1992).

Silliker and Quirk (1997) studied the relations between academic performance and interscholastic athletic participation by examining the in-season versus out-of-season academic performances of soccer players. The participants (123 high school students) in the study included male and female soccer players from five rural, western New York schools. These soccer players did not engage in another scholastic sport during the academic quarter after the soccer season. A school counselor from each of the five schools collected the following information on each participant: participant identification number, sex, grade level, first quarter GPA, second quarter GPA, and absence totals for each of the first two quarters. They found that participation in athletics can occur without significant risk to academic performance, and results suggested that participation can enhance it (Silliker & Quirk, 1997). Although it was a common strategy to take athletic participation away from students who were not performing well in athletics, Silliker and Quirk (1997) posited that students with academic difficulties would receive more benefit from peer tutoring and study-skills training.

Using a sample from the High School and Beyond 1980 data base, Camp (1990) examined the causal relationship between youth activities, including athletics, and academic achievement. The variables examined included: gender, family background, typical use of time (including hours of homework per week, television viewing habits, and hours of paid employment), and the student's prior indicators of academic ability (including mathematics, vocabulary, and reading subtests administered during the sophomore year). His findings suggested that academic achievement was enhanced by student participation in extracurricular activities such as athletics. His results also provide some support to the notion that students with academic difficulties should be

permitted to participate in extracurricular and cocurricular activities when there is evidence of the positive effects from such participation.

In a survey study of 11,995 male students, Snyder and Spreitzer (1990) found supportive evidence that athletic participation enhances later success in academics. The researchers used completed questionnaires to compare white, black, and Hispanic students in terms of their participation in varsity level athletics and their later attendance at an institution of higher learning. The results supported other studies that have found positive correlations between high school athletic participation and academic achievement. The findings demonstrated that a greater percentage of students who participated in high school athletics went to college. The study also showed that the positive effect of athletic participation on college attendance was more evident among students with lower levels of cognitive development (Snyder & Spreitzer, 1990).

Holloway (2002) reviewed literature that supports the notion that extracurricular activities, such as athletics, enhances the academic mission of schools. From his literature review, he concluded that athletic participation reduced the probability of school dropout by approximately forty percent. Involvement in these activities appeared to support at-risk students by maintaining, enhancing, and strengthening the student-school connection. Holloway (2002) argued that educational decision makers should re-examine the practice of not allowing students to participate in extracurricular activities to encourage “harder work in the classroom.” He asserted that disallowing participation for this reason may have a negative effect on the overall academic achievement of the students (Holloway, 2002).

Another study reexamined whether or not extracurricular activity participation protected against early school dropout (Mahoney & Cairns, 1997). These researchers conducted longitudinal assessments for 392 adolescents who were initially interviewed during 7th grade, and were followed up annually until 12th grade. They examined the relationship between extracurricular participation and early school dropout, or the failure to complete the 11th grade. Interpersonal Competence Scale ratings from middle school teachers identified various configurations of boys and girls who differed in their social-academic competence. The results showed that the dropout rates among at-risk students were much lower for those students who had participated in extracurricular activities. The researchers posited that extracurricular participation decreased the tendency to drop out because it gave at-risk students an opportunity to create a positive and voluntary connection to the educational institution (Mahoney & Cairns, 1997).

Gender Differences in the Effects of Participation

Along with the differences between athletes and non-athletes, there also appears to be gender differences in the effects of athletic participation. A review of the literature seems to indicate that male and female athletes are regarded differently by their peers. The following will examine the different effects of athletic participation for male and female athletes, especially with regard to their social attributions.

In 1961, a landmark study was conducted on peer values that established the standards for adolescent acceptance (Coleman, 1961). The study examined what students wanted to be most remembered for when they left high school. Coleman found that regardless of school size or socioeconomic composition, participating in athletics was the number one predictor of popularity in high school males. Over the years, this study has

been replicated and similar results have been found (Goldberg & Chandler, 1989; Kane, 1988; & Holland & Andre, 1994). However, some important changes have occurred over time, especially among female athletes.

Goldberg and Chandler (1989) reexamined the role of athletics among high school students because they believed that there could be a change in the values of adolescents since the 1960's. A questionnaire entitled "A Survey of School Climates" was completed by 1,255 high school students from urban, suburban, and rural high schools in upstate New York to assess their perceptions of the current criteria for adolescent popularity. The researchers looked at what activities male and female adolescents wanted to be remembered for, the current basis for popularity among male and female adolescents, and the importance of the student-athlete role within the adolescent social system. The results showed a difference between males and females. Females placed the most importance on being an outstanding student, whereas males aspired to be outstanding student-athletes. The results varied somewhat from Coleman's (1961) results because being an outstanding athlete was no longer sufficient for the male athletes. Goldberg and Chandler (1989) asserted that these findings added pressure to male adolescents because they felt the need to succeed in even more areas.

Kane (1988) studied the relationship between female athletic participation and status attainment within the high school adolescent social status system. Kane (1988) wanted to see if she would find different results than the Coleman study (1961) regarding female athletic participation and its importance among adolescents. Kane (1988) extended her study to further examine the effects of participation in different sports and whether they were considered sex-appropriate or sex-inappropriate. A questionnaire was

completed by 232 sophomores, juniors, and seniors (111 females and 121 males) from a small, midwestern high school. The results revealed different status attributions according to the type of sport. Females associated with sex-appropriate sports (such as tennis, volleyball, and golf) were attributed with significantly greater social status than females who were associated with sex-inappropriate sports (such as basketball and softball). Kane (1988, p. 253) concluded that, “social assessments made about female sport participation within high school status systems remain heavily influenced by traditional beliefs regarding feminine, ‘ladylike’ behavior.”

Holland and Andre (1994) examined the role of athletic participation within the social system of male and female adolescents. The researchers reexamined Kane’s (1988) results and sought to determine if her results would be confirmed when using a wider and more representative sample of students. The sample consisted of 422 high school (171 male and 251 female) and 319 college students (153 male and 166 female). Consistent with Kane’s (1988) results, Holland and Andre (1994) found that females who participated in sex-appropriate, or more feminine sports, were clearly preferred by their peers compared to females who participated in sex-inappropriate, or less feminine sports. Males were more likely to choose those females who participated in sex-appropriate sports for a date, and females were more likely to choose those sex-appropriate participants as a friend. Participation in sex-appropriate sports also was related to higher levels of self-esteem. The researchers concluded that when examining traditional roles, “a greater role conflict for female athletes would be expected to occur among participants in sex-inappropriate sports, such as basketball or softball, because this participation

presents a greater departure from traditional feminine expectations than does participation in sex-appropriate sports” (Holland & Andre, 1994, p. 405).

Other research has examined participation in school activities and the differences between females and males when comparing abilities and interests (Dawis & Sung, 1984). The data for this study were obtained during the development and validation of a new multiple ability test battery. A version of the Vocational Preference Inventory (VPI) was used to obtain the interest data. The data on school activity participation were obtained through the use of a biographical information questionnaire, which included the interest inventory. Dawis and Sung (1984) investigated whether there was a relation between abilities, interests, and differential participation in activities. The results showed that the relations between these variables and participation were generally higher for males than females, and higher for interests than for abilities (Dawis & Sung, 1984). The researchers concluded that “it is interesting to note that the activity correlates of interest were similar for the sexes, despite the fact that the sexes differed in their (reported) participation rates for a majority of the activities studied” (Dawis & Sung, 1984, p. 168).

Desertrain and Weiss (1988) studied the interrelationships among role conflict, gender role orientation, and female sport participation. The sample included 106 female students from two high schools in the Pacific Northwest. The subjects completed the following measures: a general background questionnaire to assess demographic data, the Personal Attribute Questionnaire (PAQ) to measure gender role orientation, and the role conflict inventory to measure perceived role conflict. The researchers found that female athletes reported more role conflict than nonathletes. Thus, high school female athletes

were more likely to experience an actual conflict between their roles as females than the female nonathletes. Desertrain and Weiss (1988, p. 578-579) asserted:

because team sports have been considered less socially acceptable for the female athlete because they require behaviors traditionally accepted of the masculine role, it is understandable that female athletes high in feminine orientation who participate in traditional masculine activities perceive their participation to be more in conflict with their predominant orientation toward femininity.

To conclude, Desertrain and Weiss's results supported the notion that the meaning of participation was not the same between the male and female athletes.

Goldberg and Chandler (1991) also examined selected roles as criteria for social status among high school females. The sample was formulated from a larger study (Goldberg & Chandler, 1989), and consisted of 627 female students from upstate New York. The subjects completed a questionnaire entitled "A Survey of School Climates" to assess their commitment to various roles. The first part of the questionnaire requested information such as year in school, athletic participation in high school, future plans, and desire for and expectations of continued participation in competitive athletics. The second part of the questionnaire requested information such as remembrance status (how important certain activities were for which the student wanted to be remembered), parental approval (how important certain activities were for making the student's parents proud), and peer popularity (how important certain activities were if girls want to be popular with boys at that particular school). The results indicated that there were significant differences between the athletic participants and nonparticipants regarding the roles they selected for future status. The researchers concluded that, "high school

females exhibited multidimensional self-identities that differed in relation to their involvement in sports and the social groups used as their point of reference” (Goldberg & Chandler, 1991, p. 213).

Summary

Although there is controversy as to whether or not athletic participation enhances or decreases academic achievement, there have been several studies and surveys that provide evidence that athletic participation not only enhances academic achievement, but can have positive effects in other areas. Previous research has shown that athletics can increase self-esteem, social status, and future success in education. At-risk students and students with academic problems have also been shown to perform better when involved in athletics. Finally, there appears to be many differences in the effects of athletic participation between males and females, particularly with regard to social status attributions.

CHAPTER 3

*Conclusions and Discussion**Summary of the Literature Review*

The purpose of this literature review was to determine whether or not athletic participation positively affects academic achievement and if there are differences between male and female athletes. Numerous studies have found that athletic participation may not only have positive effects on academic achievement, but there also may be positive effects in other areas of an adolescent's life.

The National Federation of State High School Associations (NFHS) and its membership assert that interscholastic sports promote citizenship, sportsmanship, lifelong lessons, teamwork, self-discipline, and facilitate the physical emotional development of our nation's youth. NFHS uses several sources to support their statement that, "students who participate in activity programs tend to have higher grade-point averages, better attendance records, lower dropout rates and fewer discipline problems" (NFHS, 2002, p. 2). According to NFHS, participation in high school activities is often a predictor of later success in life (NFHS, 2002).

After studying the effects of extracurricular activity participation on growth and change for students during the final two years of high school, Marsh (1992) found that extracurricular activity participation can increase a student's commitment to school, social and academic self-concept, educational aspirations, coursework selection, homework, academic achievement, and subsequent college attendance. In the late 1980's, Holland and Andre (1987) reviewed the literature on extracurricular participation and adolescent development and found that extracurricular participation was correlated

with higher levels of self-esteem, involvement in political and social activities during young adulthood, improved race relations, feelings of control over one's life, lower delinquency rates, academic abilities and grades, and educational aspirations and attainments. Eppright, Sanfacon, Beck, and Bradley (1997) also examined the importance of athletics during childhood and adolescent development and found that play and sport (athletics) enhanced the physical, mental, and social development of children and adolescents. They asserted that participating in athletics "encourages the development of leadership skills, self-esteem, muscle development and overall physical health" (Eppright et al., 1997, p. 71).

Mahoney and Cairns (1997) examined the relations between extracurricular participation and early school dropout rates and found that dropout rates among at risk students was much lower for those students who had participated in extracurricular activities. The researchers posited that extracurricular participation decreased the tendency to drop out because it gave those students at risk an opportunity to create a positive and voluntary connection to the educational institution (Mahoney and Cairns, 1997). In reviewing the research, Holloway (2002) also found that athletic participation reduced the probability of school dropouts by approximately forty percent.

Along with the evidence that athletic participation can enhance the academic performance of students in general, there are some indications that athletic participation effects males and females differently. In the early 1960's, Coleman (1961) reported that regardless of school size or socioeconomic composition, participating in athletics was the number one predictor for popularity for high school males. Although athletics may still

remain a predictor of popularity for males, females may not attain the same degree of popularity from athletic participation.

Goldberg and Chandler (1989) reexamined the role of athletics among high school students and found a difference between males and females. Females placed the most importance on being an outstanding student, whereas males aspired to be an outstanding student-athlete (Goldberg & Chandler, 1989). In 1988, Kane studied the relationship between female athletic participation and status attainment within the high school adolescent social status system and found that there were different status attributions according to the type of sport. Females associated with sex-appropriate sports (such as tennis, volleyball, and golf) were attributed with significantly greater social status than females who were associated with sex-inappropriate sports (such as basketball and softball).

Holland and Andre (1994) reexamined Kane's (1988) results using a wider sample of students and found that females who participated in sex-appropriate or more feminine sports were clearly preferred by their peers over females who participated in sex-inappropriate or less feminine sports. Males were more likely to choose those females who participated in sex-appropriate sports for a date, and females were more likely to choose those sex-appropriate females as a friend (Holland & Andre, 1994). The researchers concluded that when examining traditional roles, "a greater role conflict for female athletes would be expected to occur among participants in sex-inappropriate sports, such as basketball or softball, because this participation presents a greater departure from traditional feminine expectations than does participation in sex-appropriate sports" (Holland & Andre, 1994, p. 405).

Limitations of the Literature Review

There are three possible limitations of the present study. First, several studies did not consider any extraneous variables that may have affected the results, such as social economic status or marital status of the student's parents. These variables could have an effect on both athletic participation and academic achievement. Similarly, research bias may have affected the results. Since many of the studies were supported by (or cited by) NFHS, that organization's view of the positive effects of athletic participation may have skewed the results. Finally, this investigation is a review of the literature, not an empirical study. Therefore, it is not supported by any empirical experimentation, nor does it contribute new information to the field of education.

Implications for Future Research

Although the majority of the literature in this investigation supported the notion that athletic participation may have positive effects on academic achievement, there were earlier theories that posited that athletic participation detracts from academic achievement. Coleman (1961) suggested that students who put their energies into sports are less likely to pursue academic objectives. He believed that youth do not have time or energy to achieve excellence and satisfaction in both roles (Coleman, 1961). Although this theory is dated, more research is needed to determine the significance of Coleman's ideas.

Future research should consider extraneous variables or try to control their effects. For example, the athletes and nonathletes can be matched according to demographic variables (e.g., socioeconomic status, gender, and ethnicity) to examine the effects of sports participation. Future research could also attempt to find more evidence on the

differences between male and female athletes, their grade-point averages, and the social roles that they obtain.

Implications for Practice

Decision makers often find it easy to cut athletic programs because they believe sports are not overly important in the academic arena. Holland and Andre (1987) concluded that secondary schools that have eliminated some of the extracurricular programs have not taken into consideration the empirically based knowledge of the positive effects of these programs on adolescent development. Educators need to be informed of the positive effects that athletics can have on high school students. Athletic participation should be encouraged, not discouraged, because it provides experiences that are not obtainable through academics.

Summary

Over the past four decades there has been a continuing debate about the effects of athletic participation on academic achievement. It has become a more relevant issue now that there are budget constraints in our nation's schools. A study of the effects of athletic participation on academic achievement is needed to inform educators of the importance of athletics before they decide to retain or eliminate athletic programs.

This research project included a review of the literature regarding the effects of athletic participation on academic achievement. It also examined the gender differences related to athletic participation at the high school level. The results indicate that athletic participation can have positive effects on academic achievement, as well as self-esteem, social status, and future success in educational settings. Results also reveal differences in

the effects of athletic participation for males and females, particularly with regard to social status attributions.

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