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Athletic Participation and Academic Success in Junior College

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CONCORDIA UNIVERSITY, ST. PAUL
ST. PAUL, MINNESOTA
DEPARTMENT OF KINESIOLOGY AND HEALTH SCIENCES

Athletic Participation and Academic Success in Junior College

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by

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Abstract

The success or lack of success for student-athletes in the classroom has been a debate for a long time. Does athletic participation help or hinder academic success? Research is somewhat conflicted at the high school and college level whether athletic participation leads to higher academic achievement. A study done at the high school level seems to show some correlation, but studies done at the college level are somewhat inconclusive. This project was an attempt to clarify what happens when students participate in collegiate athletics and what effect that participation has on academic achievement. This project helped to clarify the effect athletic participation has on student-athlete academic success across various levels of college athletics. This was measured using the most common method for judging academic success: grade point average (GPA). The project then hypothesized what might happen at the junior college level and provided a framework for future research.

Keywords: Division III, junior college, athletic participation, academic achievement.

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Chapter 1: Introduction

Athletic participation at the Junior College levels is vast and covers all of the United States. Most junior colleges in the country are organized under the NJCAA (National Junior College Athletic Association). The NJCAA organization covers 525 school and is organized into 24 regions across the country, participates in 28 different sports, and covers over 58,000 student athletes. Schools must be a part of this organization to participate in national championships and post season tournaments. The NJCAA was reorganized in the early 1990s into the 24 regions, which consist of three divisions. The top two divisions of Junior Colleges can offer athletic scholarships and the bottom level cannot (History of the NJCAA, n.d.).

Academic Success of Student-Athletes

The effect of athletics on students' academic success has been debated for a long time and studied at various levels. It would make sense to hypothesize that the time commitment of athletics would hinder athletic performance. Yet, another thought is the time commitment required of the student-athlete creates a more organized and disciplined person in order to get required work completed. At the high school level, athletic participation has been found to have a positive influence on academic achievement or at the least it does not have a negative influence on academic achievement (Stegman, 2000). The effect was found to be less obvious at the college level. Studies have been done at the college level, but they have been somewhat inconclusive. One study by the National Collegiate Athletic Association (NCAA) in 1989 did find that female athletes outperformed their male athlete counterparts academically (Lederman, 1989). This research was done only at the Division I level.

In 2016 the NJCAA developed a strategic plan called "Unified in the pursuit of excellence", which provided the framework for a future definition of academic success for a

student-athlete. However, as of 2017, the NJCAA does have academic standards for participation (NJCAA, n.d.). These are standards for participation, but they are not a definition of success. An athlete must have a grade point average (GPA) of 1.75 after the first semester of college and a 2.0 on a 4.0 scale in semesters thereafter (Campion, 1990). For reference, a 2.0 is a C average. One more goal for most junior colleges is to successfully prepare students for the future, which for most NJCAA student-athletes is to complete their degrees and continue their academic careers at a four-year institution (History of the NJCAA, n.d.).

The previous studies on student-athlete academic performance have generally not been conclusive or directly relatable for the junior college level student-athlete. Given the lack of literature in this area, there exists an opportunity to conduct further research on this topic. Specifically, the research topic of interest is whether student-athletes achieve higher levels of academic achievement (assessed by GPA) at the junior college levels when compared to NJCAA non-student-athletes.

Purpose of the Study

The purpose of this study was to determine if athletic participation influences academic performance positively or negatively at the Junior College level. This study also looked at the academic performance differences by gender at various level of university athletics.

Significance of the Study

Limited studies to date have been done to test the effect that athletic participation has on academic performance of student-athletes at the junior college level. A research study that shows a positive correlation between athletic participation and academic success would be helpful for recruiting at this level especially to share with parents who are questioning the value of athletics in a child's education. This study could have important implications for the

collegiate sports world, especially at the junior college level. If this study offered evidence in support of the hypothesis, then the information could be an important recruiting tool for coaches and colleges alike.

This study could also be important for decisions about the future of sports at the junior college level. Many schools make difficult decisions when it comes to setting budgets. A significant impact of this study could result if a case is made that participation in collegiate athletics helps the student-athletes' academic performance. This finding could provide valuable support when making budget decisions.

Hypotheses

Determining whether participation in athletics helps the academic performance at various college levels could prove valuable in the collegiate sport industry. It has been believed that participation in athletics can improve the students' grade point average (GPA) for many reasons (Stegman, 2000). Two of these reasons include helping with time management skills, and developing a better work ethic (Stegman, 2000)). Based on this general belief, the following hypothesis was formulated:

H₁: Junior college students -athletes will have higher GPA's than non-student-athlete counterparts.

It has been suggested with studies done at the high school and Division I four-year colleges that female student-athletes perform better than male student-athletes, non-participating females, and non-participating males (Filsinger, 2012). Based on this information, the following hypothesis was formulated:

H₂: Junior college female student-athletes will have higher GPA's than male student-athletes, non-athlete males and non-athlete females.

Limitations

Piecing together information from many different studies can be difficult therefore there were limitations with this study. The best form of this study would be to conduct a full-scale survey of students and athletes across junior colleges all over the country, but that would require a great deal of time and financial commitment. As a first attempt in the research of this topic, this study utilized studies done at different levels of college and high school to perform a content analysis.

Organization of the Remainder of the Study

The organization of the remainder of this study begins with a review of the current literature on the subject. This chapter reviews different studies done at the high school level as well as the college level. After this, the study focuses on the method of analyzing the previous studies to determine whether they support the hypotheses of this study. from the beginning of the chapter. This study will then look at results from the data to test the hypotheses. Finally, chapter 5 includes a discussion of the study, further study recommendations, and a conclusion.

Definition of Terms

Athletic participation. For this study, athletic participation is limited to varsity athletes participating on a high school or college-sponsored teams.

Grade point average (GPA). The average of a student's grade, over a period, calculated by assigning a value of 4 to A, 3 to B, 2 to C, 1 to D, and 0 to F.

National Collegiate Athletic Association (NCAA). The NCAA provides athletic opportunities for institutions in three divisions (I, II, and III). There are approximately 1,300 institutions, conferences, organizations, and individuals that organize the athletics programs of several colleges and universities throughout the United States (What is the NCAA?, n.d.).

Chapter 2: Review of Literature

Introduction

Limited research has been done at the junior college level when it comes to the effect athletic participation has on academic success at the junior college level. However, many studies have been done at other levels of athletic participation and student-athlete academic such as high school and upper level division play within the NCAA. These levels of research were used to investigate and predict what might happen at the junior college level when correlating athletic participation and student-athlete academic success.

High School Student-Athlete Academic Success

Many studies have been done at the high school level that pertain to student-athlete participation and academic success. For example, four studies were done at the high school level with GPA and athletic participation in mind in the 1990s by Gerber (1996). First, in North Carolina in 1995, the average GPA for athletes was 2.86 and for non-athletes was 1.96. A study in Colorado in 1992 showed 2.96 for the athlete compared to 2.35 for the non-athlete. New Mexico in 1992 compared 2.80 for the athlete to 2.00 for the non-athlete, and Indiana in 1985 recorded scores of 3.05 for athletes and 2.54 for non-athletes (Gerber, 1996). As demonstrated here, without exception, high school student-athletes outperformed non-athletes by a significant margin in these states (Gerber, 1996).

Another high school focused study done by Lumpkin and Favor (2012) found that Kansas high school student-athletes got better grades, higher test scores, graduated at a higher rate, dropped out less, and scored higher on state assessments than students who were not involved in athletics.

In *Youth and Society*, examined whether females who participated in high school athletics are more likely to graduate from college than their counterparts. The authors,

using data from the National Education Longitudinal Study, found that females who participate in interscholastic high school sports have higher odds of completing college than their non-participating peers (Jones, 2010, p. 4)

This study demonstrated another example where female student-athletes performed better in the high school classroom than male athletes.

Another study done at the high school level was conducted by Filsinger (2012) in Tennessee. This study involved 150 female athletes, non-athlete females, male athletes, and non-athlete females. This study found that female high school athletes had the highest overall GPA and the findings were significant. However, the study did not find a significant difference for male athletes as compared to non-athletes (Filsinger, 2012).

In Stegman's (2000) study, the author randomly selected students out of a math class in a high school outside of Omaha, Nebraska. Stegman's study's participants included 93 juniors (51 percent were male) and 96 seniors for the study (49 percent were male). The students were asked to share their name, gender, grade, and number of high school sports played. Students were also given assurance of confidentiality. In addition, the student GPA, class rank, and math GPA were gathered for the study (Math GPA was used because it was of interest to the researcher). The students were also asked to specify how involved they were in sports (casually involved or actively involved). Although Stegman's (2000) study was somewhat inconclusive, it was determined that athletic participation did not hinder the athlete's GPA. The researcher did find that students who participated in more sports did tend to have higher GPAs, but not to a significant degree. One item that Stegman (2000) did find that was interesting was females who were highly participatory in sports did perform better in the high school classroom. These

female athletes achieved higher GPA's than their non-athlete counterparts and male athletes as well.

Collegiate Student-Athlete Academic Success

At the college Division I level, a 1989 NCAA study found that female basketball players do perform better than their male counterparts as a (Lederman, 1989). This study surveyed 42 Division I universities and cost the NCAA \$1.75 million dollars to conduct, making this a significant study done for the NCAA. The study discovered that female basketball players spent more time on studying and earned better grades than their male counterparts. Furthermore, females who were receiving scholarships spent more time studying than participating in their sport, which was not the case for the male student-athletes. Overall, the GPA of the female scholarship recipients was 2.64, compared to 2.44 for males.

Wilson (2011) also conducted a study that had significant findings for student-athletes at the college level. Wilson (2011) studied student athletes over one academic year at a small college in southeastern United States. The study focused on students who had completed at least one year of academic study. Wilson (2011) found that female athletes performed better in the classroom than their male counterparts. This study also discovered that student-athletes performed better in the classroom during the offseason as compared to in-season.

Maloney and McCormick (1993) studied athletes at Clemson University from 1985 to 1988. These authors found that the Clemson student-athletes did not perform as well as non-athletes and the Division I level student-athletes in general. The non-athlete overall GPA was 2.68, while the athlete GPA was 2.38 for Clemson athletes. The graduation was approximately 10 percent lower for athletes as well. This 1993 study did find, however, that female student-athletes who participated in tennis and track did not have a significantly different GPA than the

rest of the student body. Also, the researchers found that female student-athletes who participated in swimming and volleyball had a better GPA on average than the rest of the student body (Maloney & McCormick (1993).

Conclusion to Literature Review

The literature review in this study spans from athletics and academics at the high school level, low college level, and the Division I level of the NCAA. The study done by Stegman (2000) had some clear results supporting the notion of high school student-athletes achieving a higher GPA than high school non-athletes. Studies completed at the college level were less definitive for the purpose. The result of studies done by Lederman (1988) and Maloney and McCormick (1993) were less supportive of the academic and athletic success connection at the Division I level. The next section examines the methodology of the study.

Chapter 3: Methodology

Introduction

This section of the paper examines the methodology of the study. The current study attempted to determine if athletic participation influences academic performance positively or negatively at various levels of participation. This study also looked at the possibility of gender difference when it comes to academic performance at various level of athletic and academic participation.

Hypotheses

For this study, it was hypothesized that participation in athletics improves the students' grade point average (GPA). Based on this information, the following hypothesis was formulated:

H₁: Junior college students-athletes will have higher GPA's than non-student-athlete counterparts.

In addition, it has been suggested that at the high school and Division I college level, that female student-athletes perform better academically than male student-athletes and non-athletic participating females (CITE these studies). For example, Filsinger (2012) concluded that high school female student-athletes had a higher overall GPA than other female students, male student-athletes and male non-athlete students by a significant level. As such, the following hypothesis was formulated:

H₂: Junior college female student-athletes will have higher GPA's than male student-athletes and general student population.

Data Collection

The data sources used in this content analysis research project were gathered from the Concordia University – St. Paul online library. The databases used were SPORTDiscus, Business Source Premier, ABI/INFORM, Communication & Mass Media Complete, and Sport Business Research Network (SBRnet). The key words used in the search were “academic success” and “athletic participation”. This resulted in many thousands of journal articles, books, dissertations, and newspaper articles. The search was narrowed down to scholarly materials only, which were peer reviewed, fully available online, and written in the last 30 years. This initial search was analyzed for relevant information, and additional was information found using a “snowball” method utilizing the reference list of materials found in the initial search. The original search found 11,476 peer reviewed scholarly articles. Most of these articles examined in this search were irrelevant to the purpose of this study. The only source used through this first search was Stegman (2011). The rest of the sources were found through the snowball method from the Stegman article. The last search was performed during the month of May of 2017.

Data Analysis

A qualitative analysis was conducted on the studies chosen for review. These studies were examined in relation to this research questions and hypotheses generated for the study. The articles chosen were based on relevancy to the topic and quality of data. The data and quality of the articles were reviewed and deemed acceptable by the author.

Limitations of the Methodology

Piecing together information from many different studies can be difficult. It can be difficult to gain a clear picture of the problem and possible solutions to that problem. This study attempted to draw a picture and answer two hypotheses by using information and results from

other relevant studies. If the studies used were not reliable, then utilizing the studies would not present an accurate picture. Therefore, the studies used in this study have been deemed credible by being cited and utilized by many other sources. This helped to bring validity to the current study (Creswell and Miller, 2000). One of the main studies used in this content analysis was a research project conducted by the NCAA (Lederman, 1989). The NCAA invested a lot of money into the research, which also helped establish validity to the data.

Conclusion

A successful attempt to determine whether a link exists between academic success and athletic participation could have a vast impact across all levels of academia. This study attempted to predict how well junior college student-athletes would perform if their academic success was compared to their non-athlete counterparts. This analysis was done using relevant data from studies done at the high school and various college levels. Four main studies were utilized in this analysis at various levels (Stegman, 2000; Lederman, 1989; Wilson, 2011; Maloney & McCormick, 1993). Although these studies did not provide a definitive answer to the research questions, they provided insight as to what might happen if similar studies were conducted at the junior college level. The next section provides data and results from the previously discussed studies.

Chapter 4: Results

Introduction

The purpose of this study was to determine if athletic participation influences academic performance positively or negatively at the Junior College level. This study also looked at the academic performance differences by gender at various level of university athletics. In order to do this, a number of relevant previous studies were reviewed.

The data found on the actual performance of student athletes was based on Stegman's (2000) study for high school students, Lederman's (1989) study of Division I college basketball players, and Maloney and McCormick's (1993) study on college athletes, and Wilson's (2011) study conducted in the southeastern United States. Stegman (2000) surveyed high school juniors and seniors at Westside High School in Omaha, Nebraska. The study used a simple mean comparison of total GPA, math GPA, and class rank average for his study. Lederman's (1989) findings came from a study done by the National Collegiate Athletic Association (NCAA) which was done over a two year stretch in the late eighties. They surveyed 42 Division I scholarship athletes and utilized 1350 of these surveys. Lederman (1989) used a simple mean to determine which GPA was higher in each situation. They also calculated total hours studied for each athlete in each sport surveyed.

The Maloney and McCormick (1993) study used a lot of data including college GPA, high school GPA, hours of participation in athletics, and SAT scores when they examined athletic performance at Clemson University. Finally, Wilson (2011) conducted a survey on a small college in the southeastern United States. This study utilized a dependent-sample t-test to determine whether participating in a sport has an impact on GPAs of student-athletes, while also

using ANOVAs to determine if GPAs were different across each varsity sport. This study was testing three different hypotheses which is the reason for a somewhat more complex study.

Data Presented

The data at the three different levels chosen showed similar results in ways, but different results in others. The high school level data which was gathered in the Stegman (2000) study was very clear with its results. The Wilson (2011) study gathered a lot of data at one small school in the Southeastern United States. This data supported each hypothesis that it tested. The results here were also very conclusive, but not all of the data is useful for the purpose of this study. The Lederman (1989) NCAA study gathered a lot of data and had some interesting results across many different NCAA sports. This study does not compare athletes and non-athletes, but it does provide a lot of useful athlete data.

As stated earlier, Stegman (2000) studied the effects of athletic participation at the high school level. Stegman (2000) results are included in the following table:

Table 1

Comparison within Gender

<u>Group</u>	<u>Level of Participation</u>	<u>N</u>	<u>Class Rank</u>	<u>Mean GPA</u>	<u>Math GPA</u>
Female Juniors	Low	31	146.7	3.19	3.15
	High	11	44.4	3.78	3.67
Female Seniors	Low	29	116.2	3.28	3.18
	High	18	75.2	3.62	3.62
Male Juniors	Low	24	168.3	2.94	2.98
	High	27	128	3.26	3.04
Male Seniors	Low	27	154.6	3.04	2.93
	High	22	127	3.18	2.98

Table 1

Stegman (2000) found that students who participate in a high level of athletics, that is these student-athletes were more committed to the sports and achieved a higher GPA. Table 1 shows that highly engaged male student-athletes (both juniors and senior) have higher GPAs when compared to low non-student-athlete counterparts. The same was true for females, but at an even much more significant margin.

The results from Wilson (2011) gave insight as to what might happen at a higher competitive level, and the difference between the GPA of male and female athletes. Wilson (2011) studied 271 student-athletes, of which, 180 were male and 91 were female. The students participated in eight total sports (four female and four male sports). The mean GPA for the full group was 2.88. Wilson (2011) also found different significant conclusions during the study. Overall, the study determined that collegiate student-athletes had a 2.94 GPA out of season, and a 2.75 GPA in-season. For the purposes of this study, Wilson's (2011) most significant finding was the difference in GPA by gender. The study concluded that the mean female GPA was 3.17, and the male GPA was 2.73. Table 2 shows a breakdown of each sport in Wilson's study:

Table 2

Means and Standard Deviations on Cumulative GPA by Sport

<u>Sport</u>	<u>M</u>	<u>SD</u>
Men's Football	2.52	0.72
Men's Soccer	3.02	0.7
Men's Basketball	2.82	0.48
Men's Baseball	2.78	0.73
Women's Soccer	3.27	0.52
Women's Volleyball	3.27	0.76
Women's Basketball	3.11	0.79
Women's Softball	3.05	0.73

Table 2

Table 3

Means and Standard Deviations on Cumulative GPA by Gender

<u>Gender</u>	<u>M</u>	<u>SD</u>
Male	2.73	0.71
Female	3.17	0.7

Table 3

Maloney and McCormick's (1993) study was also reviewed for the current research project. These authors used data compiled at Clemson University from 1985 through 1988. The non-athlete overall GPA was recorded at 2.68, while the student-athlete GPA was lower at 2.38. The graduation was approximately 10 percent lower for athletes as well. This 1993 study did find that women who participated in tennis and track did not have a significantly different GPA than the rest of the student body, and women who participated in swimming and volleyball actually had a better GPA on average than the rest of the student body (Maloney & McCormick, 1993).

The last study included in this research project was funded by the NCAA and compiled by Lederman (1989). This study found that female basketball players had a mean GPA of 2.67, and male basketball players had a mean GPA of 2.44 across Division I sports. This study also found that female basketball players spend more time on their studies, and less time socializing in college.

Conclusion

These studies provided compelling evidence for the purposes of this research study and learning more about the correlation of students' academic performance and athletics participation. These studies were completed at various levels of athletics and provide valuable data for predicting what the results of a similar study would be if conducted at the junior college

level. The next chapter, discusses these results, draws conclusions based on the data, and offers recommendations towards future research.

Chapter 5: Discussion and Conclusion

Introduction

To date, there is little research on the effect of athletic participation on academic performance at the Junior College level. This current study attempted to clarify what would happen if such a study were to be completed. If it were found that student-athletic participation helps academic achievement, this could be significant for the vast amount of Junior Colleges across the country for recruiting and advising purposes.

This study compiled research and data representing different levels of academia through a content analysis of previous studies. These previous studies were completed at the high school (Stegman, 2000), Division I (Lederman, 1988), and lower divisions of four year colleges (Wilson, 2011). Based on this past research, this current investigated the following two hypotheses:

H₁: Junior college student-athletes will have higher GPA's than their non-student-athlete counterparts.

H₂: Junior College female student-athletes will have higher GPA's than their male student-athletes and the general student population.

Summarize Results

Research reviewed that focused on high school student-athletes provided a clear answer to both hypotheses. At the high school level, student-athletes have a higher GPA than non-athletes as concluded by Stegman (2000). However, results at other levels of academic participation were less definitive. Wilson's (2011) study clearly answered that female athletes perform better in the classroom than their male counterparts at the lower four-year college level. Additionally, Maloney and McCormick (1993) found the same results at the Division I level.

Student-athletes at all college levels researched by Wilson (2011) and Maloney and McCormick (1993) showed that athletic participation hinders athletic performance of male student athletes. These same research studies also found that athletic participation does not hurt the academic performance, and in some cases, helped female student-athlete's academic performance.

Answer to Research Question

Based on the data reviewed, Hypothesis 1 would have to be rejected: Junior college students-athletes will have higher GPA's than non-student-athlete counterparts. This hypothesis was rejected because all the studies reviewed that focused on the college level student-athletes showed that the general student-athlete population did not perform as well in the classroom as the non-student-athletes. Athletic participation may not be a direct link that hinders performance, but evidence showed it did not help. This was true even though athletic participation seemed to help academic performance at the high school level.

However, based on the data reviewed, Hypothesis 2 was accepted: Junior college female student-athletes will have higher GPA's than male student-athletes and non-athlete females. At every level of research, female student athletes performed better in the classroom than their male counterparts. It was concluded that female athletes performed better in the classroom than the general student population. This answer is based on findings at the high school level by Stegman (2000) and at the Division I level by Maloney and McCormick (1993). Stegman's (2000) research clearly stated that female athletes performed better in terms of GPA than the general student population. Maloney and McCormick (1993) found that women earned a similar GPA to the student population in two of five sports, and better than the student population in two of five sports. The only sport that females were not as good at in terms of GPA as the general student

population was basketball, which interestingly has the longest season and the most travel out of any women's sport.

Conclusion

The findings of this current study resulted from the extensive literature review. Student-athletes at the high school level perform well in the classroom, too. The time demands of the college athlete could be the biggest factor in the difference of academic performance (Maloney and McCormick (2003) but further study is needed to prove this.

Recommendations for Further Research

Many factors at this point are unclear as they pertain to the correlation of student-athlete participation and academic success. More studies are recommended to further investigate this topic and others such as: Do athletes at other levels achieve at a higher level than their non-athlete counterparts? A comprehensive study could be done at each of the three junior college levels, and other college levels.

Conclusion to Project

This study examined the effect athletic participation has on academic performance of student-athletes at the Junior College level. By examining past studies done at other athletic levels such as high school and DI, this study was able to determine a mixed conclusion based on the gender of the student athlete. The literature on this topic is somewhat limited, and this study added some new knowledge to the research field. This study also brought up more questions about what might happen if a full-scale student-athlete academic performance study were done at the NJCAA level.

This study may also help Junior College academic advisers and athletic staff members to know where student-athletes might stand when they come into the college. University staff

members can expect male student-athletes to struggle more than the general student population, and they may also struggle more than their female-athlete counterparts. This knowledge can be utilized when monitoring academic performance of student athletes as well as the retention of these athletes.

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