

**An Investigation into the Relationship between Sports Participation, Academic
Performance and Mental Health in Middle and High School Athletes**

Kevin McAuliffe

Vassar College

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Introduction

There is a basketball hoop at my local elementary school that has been up for many years, but I am convinced that I have spent the most time shooting on it in the history of its existence. That hoop was a safe haven to me, a place where I could go and be myself and get away from all the stress and worries of the world. In a broader sense, basketball and sports were a huge part of my life and my identity growing up, and they gave me a passion and a purpose throughout my childhood and teenage years.

Basketball wasn't just a sport that I played. It was my life, and it drove many of my major decisions. Throughout middle school and high school I kept a notebook of all the workouts I needed to do each week to make sure I was staying on track with my training. I had to stay on top of schoolwork as well, so I often spent my afternoons completing this training and my homework, before going to official practice for my team that night. Sports kept me disciplined in school, and my parents always reminded me that they would only support my athletic exploits if my grades remained in good shape, and I stayed on top of all my academic assignments. I met my closest friends due to pickup basketball, and a shared love of sports is the reason that I formed friendships that will last forever and continue to be a positive impact on my life.

I did sacrifice a lot of time and energy to be the best basketball player I could be and did not participate in many other extracurricular activities or branch out to meet people in other social groups. It was so important to me that there were times when basketball not going well caused a lot of stress and affected my mood and happiness. More often than not though, basketball was a stress reliever for me, and I used training, practice and games as outlets to release tension and channel my focus into the game rather than worry about things out of my

control. I felt that basketball had a largely positive effect on my life, relationships, and mental health.

As I grappled with my college decision at the age of 18, I could not imagine attending school without playing basketball and giving up on my dream to play in college. Although many of my friends chose to go to larger state schools and chase the perfect social and academic balance, all I cared about was an opportunity to play basketball. I landed at Vassar, a small liberal arts college that was much different from many of the universities my high school friends attended, but it gave me the chance to play the sport I loved and get a good education.

As I near the end of my time at Vassar, I will be leaving the school in May and officially ending my basketball career. I have gotten the chance to reflect on my time as an athlete and the influence of sports on the different aspects of my life. I feel that my identity as an athlete helped me in so many ways as I navigated my teen years and made the transition to college. Although I am hanging up my jersey, I feel that sports have taught me many important skills and habits that I will carry with me as I pursue a career in education and enter adulthood. I do expect to have some sort of shock when it sets in that my sports career is over, but I believe that the confidence I gained from years of hard work will serve me as I figure out my new purpose in the next phase of my life.

When given the freedom to choose my own thesis topic, my mind immediately started exploring ways that I could combine education and athletics, the two things I am most passionate about. Although I detailed the ways in which sports were a positive influence on me, I knew that not all athletes felt the same way, and that people had different experiences with sports, both positive and negative.

I had a close friend that had almost an opposite experience to mine in their middle and high school years; sports impacted multiple facets of their life negatively. This friend was a member of the track and field team at their middle and high school. In their younger years, they showed a lot of promise and potential in the sport, which led them to prioritize it as a major part of their life and begin to dream about college scholarships and long-term successful outcomes. They put in a ton of hard work and effort to the sport throughout high school, but seemed to stagnate in their ability so much so that dreams of scholarships disappeared, and self-doubt crept in. It got to the point that their mental health was completely affected by their sports experience. In chasing this track dream, they had given up all the other sports that they grew up playing and had gone all in and achieving their dreams in track. When those dreams didn't come to fruition, my friend struggled with their mental health, which affected their motivation and performance in the classroom. With the support of loved ones, my friend ended up quitting track and they are now doing well and have moved on from these times, although they still have lingering mental health struggles that originated during the time when they were running track.

I tell this story to juxtapose my own experiences and acknowledge that not everyone experiences things the same way. I was lucky enough to use sports to build confidence and help me become a better student, while sports had the opposite effect on my friend. I thought about these two experiences as I struggled to come up with a topic for my thesis, and I decided I wanted to explore the area of youth sports influence more.

With a quick google search, you can find articles about sports positively impacting the lives of young kids, but also find people that believe youth sports have turned into a pressure cooker that can negatively impact adolescents and put too much weight on their shoulders at a young age. However, I wanted to talk to athletes myself and find out how their experiences

shaped them into who they are. I was most interested in the middle and high school sports experience, because these are the years when most young athletes are forming their identities while also grappling with so many other influences like puberty, school, sex, drugs, alcohol, and college applications. My interest in education and academics meant that I wanted to include that as a focal point of the research and the current societal movement in raising awareness around mental health of athletes influenced me to include this as the other focal point of my research. Although I know there are other people like my friend that have had bad experiences with athletics, I have always thought that sports are generally a healthy, positive influence on young people's lives, and I set out to research the implications of sports participation on middle and high school students.

My research project focuses on two main questions: "How does participation in high school sports affect students' motivation to perform well academically?" and "How does participation in high school sports affect students' mental health and social skills?" In the following chapter, I will review the literature I found related to these questions. I will cover the relevant studies I found that helped me better understand what research exists on the topic of sports participation and its effect on middle and high school athlete's academic motivation and mental health.

Chapter 1: Literature Review

Introduction

Research on the topic of sports participation covers multiple aspects of life. As I consider the implications of sports participation on high school students' personal and educational experiences, there are three categories of research that stand out. The first category reviews quantitative academic measurements related to sports participation. The existing research discusses academic performance measured by GPA, dropout rates, and graduation rates. There is also information regarding future earnings and career impacts based on sports participation. Work ethic and motivation impact performance in the classroom too, and some of the literature covers these non-quantitative academic factors. Section two focuses on the social and mental benefits of sports participation. Studies look at self-esteem, stress levels, and bad habit avoidance. There are others that cover social life participation, social skills, and leadership skills. Finally, there is a section that discusses possible negative effects of sports participation. Research includes the effects of sports specialization, and how this relates to burnout and injury. Other research discusses social isolation as well as time management and priority issues. This review will provide information that will lead me to better answer these questions: "How does participation in high school sports affect students' motivation to perform well academically?" and "How does participation in high school sports affect students' mental health and social skills?"

Academic Performance and Motivation

Motivation, discipline, and routine are core parts of an athlete's life in the classroom and in their sport. Physical activity alone can provide positive effects of on self-esteem and

motivation, but the added responsibility and community of being in an organized sport can increase the impact on academic achievement and future outcomes.

Studies have shown that athletes develop discipline and routine through sports and have greater motivation in the classroom than their peers. They also instill habits and discipline that can influence outcomes for students post-graduation. Multiple studies have found that athletic participation leads to higher levels of academic achievement.

Barron et al. (2000) focused on education and labor market outcomes and found that former high school athletes earned higher wages in the labor market in their adult years. They reported that the wage for males aged 31-32 that participated in high school athletics was 12% higher and 32% higher than their peers who did not participate in athletics according to two different surveys (Barron et al., 2000). Higher post-graduate wages for male athletes were attributed to a higher work ethic and sense of motivation. They also stated that it was hard to distinguish whether the difference in wages was a direct cause of participation in athletics or whether those that already had higher levels of motivation were more likely to participate in athletics (Barron et al., 2000). However, the authors also concluded that “the reason we find that former high school athletes fare better in the labor market than their non-athlete counterparts is that athletic involvement enhances productivity” (Barron et al., 2000, p. 420).

Yeung (2015) garnered evidence of positive effects on test scores based on athletic participation. Yeung analyzed test score data of athletes and non-athletes in key high school subjects. When measured by cognitive test scores, academic participation led to positive effects, although they differed somewhat by gender and race. The author found that “In all six specifications, participation in high school varsity sports is positively associated with achievement in the subjects tested by High School and Beyond” (Yeung, 2015, para. 49). The six

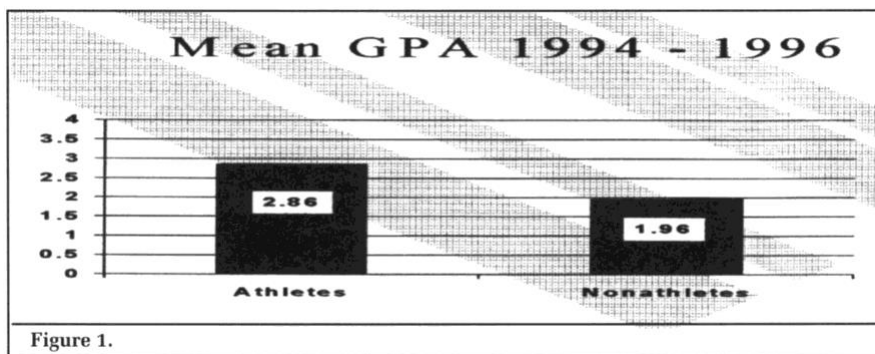
subjects tested were: Reading, Math 1, Math 2, Civics, Science, and Vocabulary. Athletes scored higher in all these tests as compared to non-athletes, although there were differences when analyzing specific demographics (Yeung, 2015). Analysis of the test scores showed that Hispanic and Black athletes benefited less than White athletes from sports participation and that female athletes benefited less than male athletes. (Yeung, 2015).

GPA is often viewed as a simple quantitative statistic that can be used to measure achievement. Sitkowski (2008) showed that the GPA's of high school sophomore and junior athletes increased during their season. Sitkowski also found differences in GPA by sport and by gender: "Specifically, it was reported that boys' basketball players experienced a significant reduction in GPA when switching to the off-season whereas boys' cross country had no such difference" (Sitkowski, 2008, p. 93). Along with sporting differences, the author also found that male athletes had higher GPA differences in comparison to male non-athletes while there was no significant difference between female athletes and female non athletes (Sitkowski, 2008). Explanations for the findings of increased in-season GPA include higher motivation levels and dedication because of increased self-image stemming from sports participation (Sitkowski, 2008).

Fox et al. (2010) found that GPA had a positive relationship with middle and high school sports participation. Their study "indicated that for middle school boys and high school boys and girls, sports team participation was associated with a higher GPA" (Fox et al., 2010, para. 16). Fox et al. also tracked hours of physical activity, and the results found that more hours of physical activity were also associated with a higher GPA. When looking at both factors, the authors stated that high school boys and girl's higher GPA's that were associated specifically

with sports team participation, while middle school results were harder to distinguish from physical activity (Fox et al., 2010).

Whitley (1999) focused on athletes in North Carolina high schools. Whitley found that athletes in those high schools had higher GPA averages than their non-athlete counterparts.



(Whitley, 1999)

This figure illustrates the findings analyzed by Whitley. The study cited athletes' motivation from to compete at higher levels as well as their inclusion in higher achieving social spaces as possible reasons for the difference in GPA and academic achievement. (Whitley, 1999)

Whitley also analyzed two other quantitative measures that can be used to measure the positive effect of sports participation: dropout rates and graduation rates. In North Carolina High Schools, "The mean dropout percentage for the athletes was less than 1% (.7%) while the mean dropout percentage for nonathletes was 9% (8.98%)" (Whitley, 1999, pp. 227-228). Using this dropout data, the author also concluded that graduation rates for athletes were significantly higher for athletes than non-athletes (Whitley, 1999).

There is not one single measurement tool for academic achievement, nor one simple explanation for why some students perform better than others. Studies showed varied results in academic achievement by gender, race, and sport. However, evidence from these studies suggest that sports participation can lead to higher academic achievement. Motivation and discipline learned from sports are important to achieving high levels of success and can help students

improve GPA scores, test scores, graduation rates and improve future outcomes. However, these are not the only positive outcomes of participation in sports. There are other benefits to participation that have more to do with social and mental skills as well as mental health and cannot be measured by GPA or test scores.

Positive Social and Mental Benefits

High school students face a host of challenges in their social and personal lives that can greatly affect their performance in the classroom or in their sport. Social dynamics, mental health and exposure to drugs and alcohol can all play a role in how a certain student-athlete fares during their high school years. Multiple studies have found positive benefits of sports participation on mental health, social circles, and other skills such as leadership and collaboration.

Multiple studies showed that sports participation improved self-esteem and self-worth in athletes. Merkel (2013) analyzed sports effect on mental health and found that youth sports participation led to more positive behaviors, better self-concept, and improved self-worth. Merkel also found that “teenagers who participate in team sports are happier, have increased self-esteem and are less anxious” (Merkel, 2013, para. 10). This improved self-esteem from sports participation has direct mental health benefits that show up in other statistics related to depression, risky behaviors, and suicide rates. Merkel’s research revealed a reduction in suicidal thoughts for teenagers who played a sport, as well as a smaller likelihood of engagement in smoking and illicit drugs. Women athletes showed lower rates of teenage pregnancy, unprotected sex, drug use and suicide when they participated in sports. (Merkel, 2013).

The Datalys Center, an organization that conducts research related to sports participation, published specific statistics on middle and high school athletes’ mental well-being. According to their research, “Middle and high school athletes are 46% less likely to report being upset, 49%

less likely to report being sad, and 37% less likely to feel hopeless.” They also reported that “young athletes were 3 times as likely to feel good about themselves” and “High School Athletes are 85% more likely to report that their friends care about them” (Datalys Center, 2012, pp. 1-2).

Positive mental health effects can also last long after students stop participating in sports. Jewett et al., (2014) focus on adolescent sporting participation and how it affects mental health in early adulthood. They surveyed adults who had since moved on from secondary school. They reported that “students who consistently participated in school sport during secondary school reported lower depressive symptoms, lower perceived stress, and higher self-rated mental health compared with students who were never involved in school sport” (Jewett et al., 2014, p. 642). The authors concluded that sports led to better emotional well-being, self-concept and perceived quality of life for athletes and influenced their mental health positively in their playing days and beyond (Jewett et al., 2014).

In addition to personal mental health, sports participation influences social circles and social health. Melnick et al. (1992) found that, “compared to their nonparticipant peers, sport participants were more apt to see themselves as being popular and to be more involved with extracurricular and community activities” (Melnick et al. 1992, p. 303). The idea of athletes being in more involved and higher achieving social circles was also cited in the study of North Carolina High School Athletes (Whitley, 1999). Although research doesn’t expand on this idea in detail, it is worth considering that the community athletes find with each other could lead to positive social experiences and reduce isolation and risky behavior.

In addition to comparing athletes to non-athletes, Yeung’s (2015) study on academic achievement included findings on leadership skills of athletes. He concluded that by “serving as a leader of an athletic team, students may learn valuable teamwork, time management, and

organization skills that improve their level of achievement in the classroom.” (Yeung, 2015, para. 59). Merkel (2013) also discussed benefits from sports participation that included improved skills in time management, goal setting, leadership, and cooperation.

The studies discussed above show multiple mental health benefits of sports along with valuable social and personal skills that can be gained through participation in athletics. However, some research argues that intense athletic participation at a young age can lead to detrimental mental, social, and academic impacts on student athletes.

Specialization, Burnout and Priority Conflicts

While sports participation has been shown to have many positive effects on students’ health and lives, there are some studies that show the opposite. Most of these focus on “burnout,” a term used to describe a situation where an athlete runs out of motivation in their sport, and this can negatively impact academics as well as social and mental health.

Burnout can happen to any athlete, but multiple studies showed that it was more likely to happen when a young athlete “specialized” in a sport early in life. Prichard (2022) studied the effects of specialization on academic achievement and emotional well-being. Prichard found that specialization was often seen as necessary for athletes to be able to dedicate enough time and energy to a specific sport in order to reach their full potential. However, this sometimes led to the opposite effect, where young athletes became overwhelmed, and experienced burnout (Prichard, 2022). Prichard also noted that specialization has recently become a more common phenomenon in sports and has led to some success and some failure for young athletes.

Long term and serious injuries are more common in athletes who specialize and can result in hard situations for the athlete. Multiple participants in Prichard’s study suffered from serious long-term injuries and surgeries: “14 of the 17 participants had been injured and played

with pain in their career” (Prichard, 2022, p. 94). These injuries led to some of the athletes quitting or experiencing extreme mental strain and exhaustion (Prichard, 2022).

Some athletes struggled with burnout even when they did not suffer injuries. They simply lost interest or became overwhelmed because they put too much time and effort in too early (Prichard, 2022). One participant in the study stated that she had multiple mental breakdowns because of the intensity of her sport (Prichard, 2022).

Giusti et al. (2020) focused on the difference between sports specialization and sports sampling (playing multiple sports and not overly focusing on one). They found that “adolescent sport specialization was associated with greater levels of burnout in all 3 aspects (reduced sense of accomplishment, sport devaluation, and exhaustion) compared with sport sampling” (Giusti et al., 2020, para. 6). These findings were consistent with reports from Merkel’s 2013 study that found early sports specialization to be linked to psychosocial problems, negative peer interaction and worsened cooperation skills.

Jacobs et al. (2003) studied children’s self-competence views in certain domains as they aged. The authors related the possibility of burnout to increased competition and selectivity as athletes age. They found that “the decline in self-competence beliefs in sports accelerated during the high school years” (Jacobs et al., 2003, p. 509). This was attributed to higher levels of competition and increased selectivity in sports as athletes get older. (Jacobs et al., 2003) To some this could be motivating, but it can also be demoralizing and detrimental to some athletes, leading them to quit or become frustrated with their sport.

Most of these studies conclude that specialization may increase the chances of burnout, but it can still happen to any athlete. Injuries, increased competition, and intensity of time commitments were factors that led to burnout. Although burnout can lead to worsening of mental

health and can cause a multitude of problems for a young athlete, it is not the only potential downside of sports participation.

Sports culture is so prominent in the US, that it can sometimes overshadow academics. Simons et al. (1999) conducted a study focusing on college athletes' priorities and time commitments. They found that "the athletic culture that student athletes inhabit informs them subtle and not-so-subtle ways that athletics takes priority over academics" (Simons et al., 1999, p. 159). They also discussed differences between sports, referencing the idea that higher profile athletes, like football and basketball players, were more likely to prioritize athletics and showed less academic motivation (Simons et al., 1999). Gaston (2002) studied student athletes' motivation towards sports and academics and referenced the idea that athletics detracted from academic achievement but found it difficult to draw conclusions about how frequently this occurred. Sitkowski (2008) also references this question of athletic priority and finds conflicting evidence based on literature that claimed athletic time commitments could take away from academics and his findings that athletics supported academics.

There is conflicting research surrounding priority of athletics and academics, although some studies show that sports can take time and energy away from the classroom. Athletic priority, burnout, and specialization continue to surface as negative issues in the world of youth and high school sports and are important to consider when reviewing effects of sports participation.

Conclusion

There is literature to support positive mental health benefits and improved academic achievement from participation in sports, but there are also risks associated with it and the

literature is not fully conclusive. While sports can be a positive influence in a young athlete's life, too much intensity or focus on sports can lead to detrimental effects on development.

The literature covers a multitude of topics surrounding these issues. In order to add to the conversation, this study will seek to interview former high school athletes who have stuck with their sport through college and have been recruited and accepted to a highly selective college. These student-athletes each have unique experiences of how sports participation has impacted each of their lives, positively and negatively. As a college athlete myself who has benefited from sports participation yet has also experienced burnout and prioritization conflicts, my positionality as a peer athlete will shine a unique lens on the stories of the athletes that I interview.

Specifically, my study will build on the research surrounding mental well-being and motivation. I will explore how athletic participation impacts students' motivation in the classroom and whether playing sports positively impacts their desire to do well in school. Paired with this, I will address the issue of emotional and social well-being and inquire about whether students found that sports contributed to a more positive self-image and social life or whether it caused more stress and burnout.

When surveying athletes and speaking to them about their former experience, I will look to expand the research on:

- In season vs. out of season motivation (Sitkowski, 2008)
- Effect of sports on self-esteem (Merkel, 2013)
- Effect of sports on risky behavior avoidance (Merkel, 2013)
- Priority of sports vs. academics (Gaston, 2002)
- Feelings about social circles (Whitley, 1999)
- Differences between gender, race and sport (Simons et al., 1999) (Yeung, 2015)

- Differences due to specialization and or injury (Prichard, 2022)

Chapter 2: Methodology

Introduction

In order to research the implications of sports participation on student's mental health and academic performance, I used a mixed-methods approach that included short online questionnaires and semi-structured long-form interviews. Using these methods, I addressed the two research questions that I had decided upon: "How does participation in high school sports affect students' motivation to perform well academically?" and "How does participation in high school sports affect students' mental health and social skills?" In addition to these two questions, I also explored differences in experience based on gender identity and sport. This chapter will address my methods, sampling, analysis, and the limitations of my study. Survey participants in this study were all current student-athletes attending Vassar College and were found through a survey sent to all athletes. Interview participants were all Vassar athletes found through volunteers from the survey and personal connections.

Methods

My decision to use a mixed-methods design was based on the idea that both qualitative and quantitative data could be useful in this study. Vassar is home to around 400 student athletes, whom I surveyed to find broad quantitative trends. However, the main goal of my research was to provide first-hand accounts of students' experiences with academic motivation and pressure as middle and high school athletes as well as stories of mental health journeys related to athletic identity. I decided this would be best achieved with qualitative interviews that would be able to illuminate stories and experiences of athletes who have gone through high school sports and made it to the next level at a high academic school.

I chose to develop a structured online questionnaire to gather data from as many athletes on the Vassar campus as I could. Since this was a relatively large sample size, I chose to use a semi-structured questionnaire as opposed to unstructured, so that data analysis would be easier with the number of responses, but there was still room for nuance (Cohen et al., 2007). I used mainly closed questions, so that I could gather some basic quantitative data, and I knew that I would have the opportunity for open-ended questions during my interviews. I also used rating scales in my questionnaire because I was interested in gathering degrees of response as opposed to yes or no answers (Cohen et al., 2007). I chose to use an internet-based questionnaire so that I could access more respondents, because I felt I could reach more people than I would have been able to manually (Cohen et al., 2007). This questionnaire was the best way for me to efficiently gather relevant, quantitative data while simultaneously helping me find interviewees. The benefit to this approach was that I was able to gather data from a larger sample through an online questionnaire. This allowed me to reach a larger population of respondents and have a larger sample of data to work with and analyze.

One of the potential challenges of the questionnaire approach was difficulty in achieving high response rates as well as nuance and detail associated with the answers to questions. To combat these issues, I used several methods of sending out my survey with an email blast to all athletes, as well as a follow-up with team captains for smaller text-blasts to each time. I also used the mixed-methods approach, including in depth interviews to gather more detailed qualitative data in that way.

The most important part of my data collection was the interview process. I chose to use semi-structured open-ended interviews. The benefit of the semi-structured interview as opposed to a fully structured interview was that participants expanded on questions and told stories, and I

was able to ask follow-up questions if there was something I wanted them to elaborate on (Cohen et al. 2007). The benefit of the semi-structured interview as opposed to the open interview was that all participants answered the same specific questions so that I could compare participant responses (Cohen et al. 2007). The balance of the semi-structured interview allowed subjects to express opinions and tell stories, but also kept the interviews structured so that they were similar in nature and addressed the same questions.

My questions were broken into three main sections: academic experiences, social experience, and mental health experience. I also added in a few background questions so the participant could ease in to the interview, and some wrap up questions in case anything was missed. I structured my questions so that the more delicate questions surrounding substances and mental health were towards the end of the interview when I had already built a little trust and rapport with the participant.

Since these interviews gathered qualitative data, they were focused on individual stories and journeys of sports participation. Questions focused on themes but allowed the interviewer autonomy in telling stories or providing relevant tangential information. Cohen et al. (2007) emphasize that the open nature of interviews allows for this meaningful quantitative data to be gathered, which is what I replicated, with questions to keep the conversation on topic and to provide prompts.

Sampling and Participants

I used a combination of two different sampling strategies to find participants for my study. I used a convenience sampling strategy to find my pool of athletes, which I chose because it was the most accessible to me. This strategy does not aim to be representative of the total population (in this case athletes who participated in youth and high school sports). Instead, it

aims to find accessible participants that will provide information that can be analyzed to find themes and trends that pertain to that pool of athletes and may offer an opportunity for further research of the larger population (Cohen et al., 2007). The pool of athletes I surveyed competed in varsity sports at Vassar College. I had help distributing the survey from the Vassar athletic department and Vassar athletic team representatives. The survey included a question where athletes could volunteer to help my research by participating in a further interview. This volunteer sampling strategy was not used to find generalizable claims but rather to add substance to my research in the form of personal experiences and anecdotes about athletic participation and its impacts (Cohen et al., 2007).

I had 74 survey respondents from 15 different sports after two weeks of collecting data. My survey analysis chapter details the full demographic data of respondents including gender and racial identity data. As for my interview participants, I have provided a table below highlighting each participant with the use of a pseudonym along with their sport(s) and racial/gender identity. I had 8 total interview participants.

Name (Pseudonym)	Sport(s) Played	Gender Identity	Racial/Ethnic Identity
Jessie	Volleyball, Rugby	Female	White
Lizzie	Swimming, Volleyball	Female	White, Hispanic
Julia	Track, XC, Soccer, Volleyball	Female	White
Justin	Fencing	Male	White

Sophie	Lacrosse, Crew, Basketball, Field Hockey	Female	White
Phoebe	Track, Basketball, Volleyball	Female	Latino
Travis	Basketball	Male	Mixed (White/Black)
Madison	Volleyball, Track	Female	White

Analysis

I chose to separate my analysis into two different sections to analyze the two different data collection methods individually. I separated the survey from the interview data into different chapters which helped organize the analysis (Cohen et al., 2007). For the survey data, I used the google forms pie charts and bar graphs that they create for each question. I included some figures that were created by the google forms responses tab as well as some respondent percentages that I calculated myself.

For my interview data, I chose to manually code my data instead of use a computer program because I felt I could handle the number of transcripts and documents I had, and I wanted to read and interact with the interview transcripts more as I was coding to get a better sense of the themes popping up. I coded my interview data by issue instead of by individual. The benefit of this method was that I was able to compare responses across multiple themes and my analysis was organized into the same themes that I reviewed in the literature (Cohen et al., 2007). A downside of this method as opposed to other methods is that my pre-selected issues may have left additionally relevant data out that might have been picked up (Cohen et al., 2007). In order to

account for this challenge, I mostly sorted my issues very closely with one or two questions that I asked so that the entirety of each interview was covered. In addition to this, I read through all transcripts thoroughly to pick up any additional themes or relevant issues that may have arisen in the interviews.

Limitations

There are certain limitations to this study that are related to methodology. The sample size and sampling methods are based on locational convenience. The results and findings of this study are not representative of athletes in general, or even division 3 athletes. The participants are limited to one NCAA division 3 college. Therefore, takeaways and findings may be used to highlight experiences and find trends that could be used for further research, not generalize for a large athletic population.

Conclusion

This chapter provided information on the methodology that I used and the steps that led me to find my participants and gather my data. I used a short online questionnaire and a semi structured interview to gather valuable knowledge about past experiences of Vassar athletes. In the following two chapters I will present my actual data analysis that resulted from both the questionnaire and the interviews.

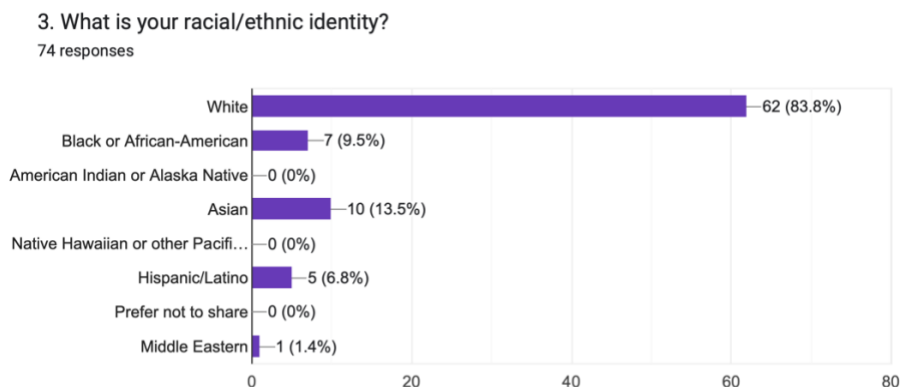
Chapter 3: Survey Analysis

Introduction

I sent out a survey via google forms to the entire Vassar student athlete population with some simple questions about the academic, social, and mental aspects of their sports experience prior to college. I was searching for some quantitative data from a larger sample size in order to give my interviews some context and to get a feel for how Vassar athletes were responding on these issues. After a 2-week collection period, I received 74 responses from 15 different types of sports. In this chapter, I will discuss the findings from this survey analysis and report on statistics that I found interesting and relevant to the study. I will split this into 5 different sections that each represent a portion of the survey that was analyzed. The first will be about the demographics of the respondents to provide some context of the Vassar athlete population and who completed the survey. The second section is based on a series of questions about academic motivation and priority. The third is based on a series of questions about mental health and social experience. These first three sections are fully quantitative data. The last two sections are based on open ended questions within my survey where students were given the freedom to write optional short responses to the questions that I provided. The 4th section is based on a question asking students to elaborate on their academic, mental, and social experience if they choose to and the 5th section is based on a question surrounding long term injuries and how these might have affected the athlete's experience. This analysis will provide some larger scale patterns about the Vassar athlete's former experiences as well as some broader context for the longer form interview analysis to come.

Demographics

The demographic information of the survey covers three simple, but important questions about respondent's identities. The first was "What sport do you currently play?" I received responses from 15 different athlete types with the only three sports eclipsing 10% of the responses being volleyball (16.2%), basketball (13.5%), and field hockey (10.8%). The next two questions were related to gender and racial identity. Approximately 60% of respondents were from women's teams and 40% were from men's teams. In regard to the racial identity question, 84% selected White, 14% selected Asian, 10% selected Black, 7% selected Hispanic/Latino, and 1% selected Middle Eastern. The percentages from this do not add up to 100 because some individuals identified as bi-racial or multi-racial and chose multiple options, but the breakdown provides an idea of the racial makeup of survey respondents. This demographic information provides some important and interesting context about which types of athletes are represented in the respondents. The figure below represents the racial/ethnic breakdown of survey respondents:



Academic Motivation

The next section of my survey featured 7 statements surrounding academic priority and motivation. Students responded based on their middle and high school experiences. The responses were on a Likert scale comprised of strongly disagree, disagree, neutral, agree, and

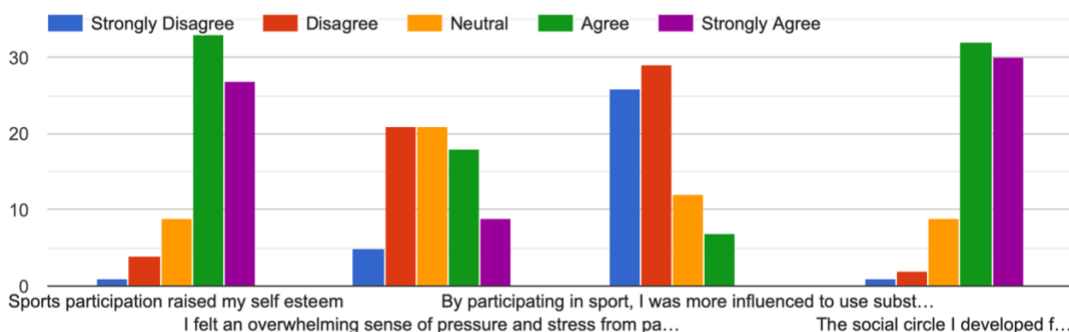
strongly agree, and responses led to multiple interesting takeaways. Firstly, students formed an overwhelming consensus on leadership and time management skills. 83% of respondents agreed or strongly agreed that sports helped them manage their time better and 87% agreed or strongly agreed that sports helped them develop leadership skills. When asked to respond to a statement that said, “sports took priority over academic work,” 60% of respondents disagreed, while 20% remained neutral and 20% agreed. The question about high stakes testing yielded an interesting mix of results. 49% of respondents agreed or strongly agreed that sports helped them prepare for high stakes tests such as the SAT or AP tests, while 25% remained neutral and 26% disagreed with this statement. The final statement asked generally if the respondent felt that sports positively influenced academic success and a majority 60% either agreed or strongly agreed with this statement. This section revealed some interesting trends about academic motivation and success and generally found respondents to be positive or neutral about the role of sports in their academic lives.

Mental and Social Health

The mental and social health section was comprised of four statements and used the same agree/disagree Likert scale. Two statements received overwhelmingly positive responses. Over 80% of respondents agreed or strongly agreed that sports raised their self-esteem and over 80% also agreed that the social circle they developed through sports played a positive role in their life. On the flipside, 75% of respondents disagreed or strongly disagreed with this statement: “By participating in sport, I was more influenced to use substances (alcohol or drugs).” The most controversial statement in this section read: “I felt an overwhelming sense of pressure and stress from participating in sport.” This received a very split response from athletes, with approximately 1/3 of respondents agreeing, 1/3 disagreeing and 1/3 remaining neutral. I wanted

to focus a lot on this area during my interviews because I felt that there was more to be discovered about the relationship between pressure, stress, and sports. The figure below represents the breakdown of respondents' answers to questions from this section.

5. Please answer these questions about mental and social health based on the agree/disagree scale



Short Answer Responses

The fourth section of the survey was simply an optional written response asking students if they would like to elaborate on any of their answers to the previous statements. When combing through some of the short answer responses there were a couple statements that seemed to align with the survey results and reflect the positive nature of most respondents' answers. These statements reflected a positive impact that sports had on other parts of life. Below are some examples:

- "Track improved my confidence, helped me become more independent, and helped my social and mental health."
- "Being on a sports team in high school and middle school aided in finding a social circle and helped in time management and leadership skills."
- "However, sports helped me learn how to perform well under pressure."

I also came across some written responses that were interesting and provided further context for the survey data. These responses brought up different variables such as coaching, popularity and out of school team responsibilities that add important layers to the experiences of young athletes. These are important ideas to explore when considering the adolescent experience and sports participation ramifications. I included these responses below:

- “I would say sports negatively affected my mental health, but it was due to the coaching staff and not the sport itself. I had multiple emotionally abusive coaches that constantly hurt my mental health.”
- “It consumed my personhood: making up my personality, building my social circle, and taking precedent over my academics. Eventually, this pushed me towards the use of alcoholic substances... [because we] ... represented a kind of "cool" place in the social hierarchy.”
- “Socially, I felt like it gave me less opportunities to see my friends because I was playing field hockey year-round through both my school team and a club team while also running indoor and outdoor track. There was never an afternoon or weekend that I had free to spend a lot of time with others.”

Injuries

The final section of the survey asked about long-term injury, and how this may have affected athletes’ mental health, social experience, or academic motivation. I left this as an optional short response because some respondents may not have suffered injury, and some may have had more to say than others on this topic. Of the responses I received, the theme was very much the same: injury caused mental health to worsen and sometimes affected social settings or academic work as well. One student described their experience below:

“I had 2 ACL reconstructions in high school. Being isolated from my teammates and being unable to play with them strongly impacted my mental health in a negative way. It also impacted my social life negatively and made school/my academic environment feel more stressful and draining.”

Another student elaborated on how their injury negatively affected mental health:

“Dealing with a long-term injury had an inevitable negative impact on my mental health. When struggling with an injury you have to watch your teammates work hard and improve while you are unable to keep up with the way you worked in the past. This instills feelings of helplessness and negatively impacts self-esteem.”

This was a theme seen throughout most of the responses from people that had suffered injuries. Not all students elaborated as much as the previous two responses, but I received about 6-7 further responses from students that said they were unhappy during their time being injured or that their injury negatively affected their life. This section provided valuable examples of many athletes that struggled with mental health and other aspects of life while dealing with serious injuries.

Conclusion

This chapter examined the results from my online survey, and provided data in the form of statistics and charts to highlight certain themes and questions that were controversial. There were also short response answers that provided further context for some of the results. All the themes covered in this survey informed my interview preparation and gave me a sense of which ideas I needed to explore more thoroughly. The topics from this survey that I wanted to focus on during my interviews included:

- Sports effect on high stakes testing

- Pressure and stress in sports
- Sports vs academics as a priority
- Athletes' drug and alcohol use

In addition to these topics, the survey revealed themes that had an overwhelming consensus from respondents, which my interviews can hopefully provide more context for. In the following chapter, I will be analyzing my interview data and covering similar themes with more qualitative and anecdotal data.

Chapter 4: Interview Analysis

Introduction

I conducted 8 semi-structured interviews with current Vassar student athletes over the course of about 3 weeks. I received volunteers from my survey of people willing to participate in an interview and I spoke to each of them for about 20-30 mins about their middle and high school experiences related to sports. I asked a series of questions about academic performance and motivation, mental health, and social experiences. Following the interviews, I transcribed them and sorted my analysis with quotes from each person about different topics and themes that were emerging from my conversations. My analysis is split into three different sections. The first focuses on academic experiences and how each student's sport affected their academics in high school. The second section focuses on all the positive aspects of these student's sports participation related to their mental and social health. The final section will discuss negative aspects and frustrating experiences that athletes had with sports that tied into their mental and social well-being. Throughout this chapter I will be using fake names and sometimes locations in order to protect the identity of all my participants. This analysis will inform my conclusions about the overall topic and has multiple key takeaways that I will discuss further.

Academic Experience and Motivation

I conducted my interviews in the same categories that I analyzed them, and I started off with multiple questions about academic experiences. Participants were asked to reflect on how their high school sports participation affected their academic prowess. I will cover four areas of interest that emerged in this section: time management, discipline and routine, academic priority and testing pressure.

Many of my interviewees mentioned time management as a skill they acquired throughout their high school experience. Sophie, who played three sports year-round in high school, thought that sports helped her perform better in the classroom because she developed time-management skills and got things done in a timely fashion. Three other participants referenced games and practices filling up a lot of time, which required them to structure their time and stay on top of things when they did have some free moments during the week. Julia, who ran track and field, mentioned that sports “gave her a lot of a lot of time management skills, because having practice after school every day meant she only had certain hours to do homework.” A couple participants even mentioned built-in time-management structures. For example, Travis played four years of high school basketball and said he had mandatory study hall every day between class and practice, which forced him to stay on top of schoolwork.

Another theme that emerged from the interviews that is related to time management was the development of self-discipline and routines. Justin, who competed in high level fencing for many years, said “Sports helped me have a routine. I had practice every night, so I knew after practice, I would only have x amount of time. It put some pressure on me to finish my work, which I needed.” Two other athletes mentioned similar things. Lizzie, who was on the swim team, mentioned that sports gave her discipline and motivation to work toward goals. Phoebe, who played three sports but specialized in track and field, explained that track made her have a more disciplined schedule and routine than she otherwise might have had. In total, 7 out of my 8 interviewees mentioned sports positively affecting their academics by helping them create discipline and a set routine. The only negative responses surrounding these topics were attributed to a super busy schedule, which led to less sleep or sacrificing of social opportunities, but I will cover those a bit more in further sections.

An interesting topic that I explored during these interviews was the idea of priority. I asked students how they dealt with academic and sporting conflict and how they decided what would take priority. Many participants mentioned missing class as one of the consequences of sports participation. However, none of them seemed to think it affected their overall performance too much. Lizzie, the swimmer, stated that she “never really worried that missing a little bit of class was going to have a drastic effect academically.” Jessie, a former softball and volleyball player, said that she sometimes missed class for games but also reported that she “didn't think [she] ever really had a large conflict between sports and academics.” Many participants claimed that they had times where their schedule filled up, but they always felt that academics were the number one priority. Travis told me that “[his] parents were always pretty strict about the fact that school comes first, and basketball comes second.” Other students echoed this idea of school being the most important in the long run. Similar to previous answers about discipline and routine, the participants reported that sleep and social events were always the first to be sacrificed, and academics were the first priority.

The final theme from the academic section was high pressure situations and testing. Interviewees expressed differing opinions about whether sports influenced their testing ability and results. Justin claimed that the skills he learned when fencing to deal with anxiety and stressful situations helped him become a better test taker and get less nervous. Travis compared a high-pressure test to the pressure he felt in a basketball game and said that he could deal with the possibility of failure because he had to deal with the possibility of losing in sports. Others that played individual sports, such as Phoebe (track) said that the mindset they used to get ready for competitions transferred over to high-pressure tests. Phoebe mentioned that she “was able to focus [herself] in high pressure situations,” which helped with “taking the SAT at 8am.” On the

other hand, a couple participants didn't see a connection between sports and testing and dismissed the notion that they might have influenced each other, emphasizing that they kept sports and school separate.

This section of the interviews was the most straightforward in terms of differentiated responses from participants. Most of them agreed that sports helped them with discipline and time management and that they always kept school as the priority. Although some thought that testing outcomes weren't affected by sports experiences, no one really thought that they hurt them. The one instance where they did briefly mention a couple negatives were related to lack of sleep and time which I will cover in the further sections. In general, the academic responses were overwhelmingly positive, and proved to be the section that was the least controversial throughout my interviews and analysis.

Mental and Social Health Benefits

The second section of this analysis will focus on my interview questions surrounding social experiences and mental health experiences while participating in sports. There are multiple themes that respondents covered in their answers, and I will address them in the following order: confidence boosts, positive friend group and support systems, coping mechanisms, substance avoidance, and passion for sport.

One of the first questions I asked participants was related to confidence and self-esteem. Every single person I interviewed said that sports helped them build confidence and gave them belief in themselves as athletes and as people. A couple of them noted that success in their sport gave them confidence because "being good at something can help your self-esteem a lot," as Jessie put it when asked how her high school sports had impacted her. Madison, who competed on a high-level volleyball team for years, said the experience gave her an inner drive and belief

in herself. There were other factors, such as coaching, that may have affected self-esteem negatively that I will cover later, but the act of competing and working at a sport was unanimously reported to boost all my participants self-esteem and confidence.

An important aspect that I wanted to investigate was friend group dynamics surrounding sports teams and whether that played a positive or negative role in people's lives. Participants shared a variety of different experiences. Multiple people claimed that their friend group was mainly comprised of teammates and that they were a positive force in their lives. Julia, who focused mostly on track and field, mentioned that she ran cross country in the fall solely because of the people on the team, and said that they made the experience worth it. She also told me that she was grateful for the support system of teammates and coaches that helped her through things. Other participants described having "school friends" and "team friends," especially those who did club sports such as Justin with fencing. He explained that "when there was drama at school, it would be nice to have a drama free fencing environment." Whether the team was their main friend group or not, many participants said that it was a positive environment that brought them joy and support.

Another interesting benefit that was discussed was the use of sports as a coping mechanism for stress. Every single participant mentioned this as something they do, and many times they talked about it before I even asked the question directly. Sophie summed up the idea in this statement: "I like having that release of physical stress and getting away from schoolwork. And then when you're doing a sport, you're fully invested, and you don't think about the other stuff that you have to do. It's just kind of like an escape from everything else." Most people described a similar feeling, such as Lizzie, who claimed that every day she doesn't swim she feels that she has a worse day. Multiple people mentioned that they used exercise as a coping

mechanism when they were particularly stressed, not just on a day-to-day basis. Julia told me that if she was having a bad day, she would often go for a run or lift weights. One of the athletes I talked to spoke about struggles with anxiety and explained that they found techniques to deal with it in their sport first, and then they were able to apply them to other areas of their life. This was one of the most prevalent themes throughout all my interviews and I believe it is a very important benefit that these athletes described when speaking about their experiences.

The next paragraph will examine the dynamics of substances such as drugs and alcohol and how participants interacted with these in relation to their sport. Participants had a couple different viewpoints about how their sports and social surroundings impacted their relationship with drugs and alcohol. Multiple people referenced time commitments and schedule commitments due to sports, which meant they had very little time for substances. Sophie, who had an intense schedule with multiple sports, explained that she had competitions on Saturdays and Sundays, so it was not possible to go out because she had to get rest and be ready for the next day. One of the biggest reasons participants said they chose not to use drugs and alcohol during high school was to maintain healthiness and performance in their sport. Julia (track and field) explained: "I think the people who are doing the most drugs and alcohol are not on sports teams. Wanting to be healthy and being able to perform well influenced my decision [not to use substances]." A couple other respondents were a bit more neutral, acknowledging that they had teammates using substances or that they themselves would use drugs and alcohol occasionally. Both these athletes emphasized that there was no pressure to partake, but there was the option there if you wanted to. Overall, the majority of respondents said they did not use substances while in high school.

The final theme that I wanted to touch on was love and passion. Many of the athletes I interviewed spoke about the passion they had for what they do, and how they loved their sport. Multiple people said that if they didn't love playing their sport, they would have quit but the joy that sport brings them keeps them going. Madison, who had discussed plenty of negatives about her volleyball experience ended our interview by emphasizing this to me: "I found something that like I really love to do every day. I know I talked about a lot of negative stuff, but I still love to go on the court and play. It's like my favorite part of my day." I wanted to end with this section because having something that you love to do and something you are passionate about brings you purpose in life, and many of my interviewees reflected this belief in their answers.

I covered the entire rest of my interview and went over all the positive themes and responses that participants gave about mental and social health. In the following section, I will focus on some of the negative themes that came up throughout our conversations.

Burnout and Negative Effects

My final section of interview analysis is focused on negative experiences and challenges that students faced while competing in their sports. It is broken down into these main themes: abusive coaching, bad teammate relationships, injuries, overwhelming time commitment and overwhelming pressure/stress.

The first theme is one that might seem obvious, but that has such a dramatic effect on the experience of athletes and their mental health. Good coaches can be inspirations, role models and positive forces in young athlete's minds. However, a bad coach can absolutely ruin an athletic experience and have negative effects. Four of my participants described abusive coaching experiences that led them to have negative mental health consequences or quit the sport. Sophie competed in fencing until she was in middle school and told me she quit because of the "harsh

and physically demanding exercises with a lot of repetitions and drills.” She felt it was too much intensity for such young athletes, so she decided to stop doing it. Madison described an extremely abusive volleyball coach she had at a young age. She said that he would count their mistakes, curse them out, and make them do physical exercise or run in front of the whole team as punishment. She described experiences of being only 11 years old and having the coach yell at her that she was a [expletive] idiot. She explained how these experiences destroyed her confidence at such a young age and had her on the brink of quitting. She stayed with it and eventually found better coaching, but these are examples of how coaching can negatively impact the mental and physical health of such young players. Other athletes described coaches throwing basketballs at their heads, cussing at them, and degrading them. One participant said they skipped their last few tournaments in high school because they could not stand being around the coach anymore. Youth coaches can have such large impacts on students and their experience as an athlete and a human being.

The second theme is about teammate relationships. Multiple athletes described negative experiences with teammates that led them to love their sport less or decide to quit and move on. One athlete said that her basketball team was full of drama, and she didn’t get along with her teammates, which contributed to her decision to leave the sport and focus on other ones. Another athlete described a competitive team environment, where there was unhealthy competition that led to almost no personal connections being formed. Not all participants mentioned negative teammate experiences, but it seemed like something that could impact any athlete and cause them to have doubts about whether to continue.

The next topic is injury and how it can impact an athlete negatively. Obviously, any physical injury will harm a person and long-term injuries can be painful with a lot of rehab and

struggles. However, I asked questions about how long-term injuries affected participants' mental health and academic performance. Most of the students I interviewed were lucky to not have suffered long term injuries, but the ones that did all said that it was a challenge mentally. Justin, who sustained multiple long-term injuries while fencing, mentioned that his injuries led him to think about quitting fencing multiple times. He explained that he felt a bit helpless and lost the will to continue fencing at certain points. Julia, who couldn't compete in track for some time due to health issues said, "it was really hard mental health wise." Injuries are a part of sports and usually accidents, but they can often really derail an athlete's mental stability while they are recovering from one that is long term.

One of the most common negative experiences that students shared with me was immense time commitments, leading to lack of sleep and burnout. Two of the athletes I interviewed, Sophie and Madison, spoke about minimal sleep and described frustrations with the lack of time to compete all their sports requirements and academic requirements while still getting enough sleep. Both mentioned staying up as late as 4 or 5 am completing assignments that they didn't have time for during the day because of sports commitments. They said this led to them being tired the following day at school and affected their overall well-being because they were constantly fatigued. Other participants quit their sports because they were tired of putting up with the time commitments and stress and decided that it was too much to continue with. Phoebe mentioned quitting volleyball because "[she] just didn't like it anymore. It took too much time and was too demanding." Multiple other athletes mentioned burnout from too much time committed to the sport which led them to quitting one of their secondary sports and sometimes ponder quitting their primary sport. Burnout can happen from many of these negative

experiences, but this time commitment theme was the one most students brought up when asked about burnout.

The final theme relates to the topic of stress and pressure. When I asked my participants about the stress in sports, most told me that there was good pressure and stress that pushed them to be better and work harder. Sometimes, stress in sports can go beyond that and cause problems and there were a couple athletes that mentioned that. One participant described an eating disorder that they struggled with while multiple others spoke about the performance anxiety they faced when competing. A couple of participants said they hadn't experienced overwhelming stress, but they had teammates who struggled with it and ended up quitting.

This section covered all the negative factors that came up during my interviews and offered some counter examples of how sports can become overwhelmingly stressful and mentally challenging. The environment of the team and sport chosen as well as the time and energy demanded from it can greatly affect whether these experiences occur.

Conclusion

This chapter covered the major themes from my interviews. The interview analysis added to themes found in the survey analysis and provided qualitative data to support the main takeaways. The most interesting and controversial themes discussed in this chapter were:

- Priority between sports and academics
- Sports effect on high pressure testing
- Social influence and teammate dynamics
- Alcohol and drug use among athletes
- Abusive coaching

The final chapter will discuss these topics and reference the literature review to draw conclusions about the overall findings from my research. I will examine which themes in my analysis were similar to those I read in the literature and which findings may contradict existing literature or add new ideas.

Chapter 5: Conclusion

Introduction

I have now analyzed data from my interviews and my survey and discussed the main themes that arose in my data. My findings supported many of the conclusions highlighted in the literature review, although there were some differences in each broad category as well as a few themes that came up in my data that were not present in the literature. I will address my findings in relation to the literature within each of the three larger themes I have established: academic motivation, mental health benefits and burnout/negative aspects. I will also address a few of the limitations that my study had and explain the largest takeaways I have now that I conducted this research.

Academic Success and Motivation

My research on academic motivation and success was overwhelmingly positive and supports the notion that sports participation can lead to better academic outcomes. My survey and interview data were mostly qualitative. The data consisted of student experiences and student thoughts on how sports affected their own academic performance. This differs slightly from some of the literature that focused on quantitative data related to GPA comparisons and school dropout rates. However, the takeaways from my data provide support and explanations for why some of the literature findings are showing positive academic success from athletes.

Three studies in my literature review supported the claim that sports participation leads to higher GPA outcomes (Fox et al., 2010; Sitkowski, 2008; Whitley, 1999). While my analysis doesn't discuss specific GPA scores, it does support the notion that sports participation leads to greater academic success. My survey analysis indicates that a strong majority (60%) agreed that sports had a positive impact on their academics. While others remained neutral, few disagreed

with this statement. My interviews produced much of the same sentiment. When asked about sports having positive or negative effects on their academics, all my interviewees said their sports experience had a positive effect. They discussed time management skills, discipline and establishing a routine as reasons that sports helped them perform better academically. The only downside that a couple of students mentioned was a lack of time to complete work which cut into their sleep, but even these students thought that sports had an overall positive effect on their academics. My data do not provide evidence of higher GPA scores, but they do provide explanations for why these studies may have found that GPA scores are raised by sports participation.

Yeung (2015) and Merkel (2013) found that leadership, time management and organizational skills were benefits of sports participation. My survey and interview analysis heavily supported this notion. Over 80% of respondents said they agreed that sports helped them develop both time management and leadership skills. During my interviews, almost every participant mentioned time management skills and an organized routine that they had to develop because of their sports participation.

Yeung (2015) found that sports participations is positively associated with higher test scores in core subjects. My analysis provides conflicting evidence on this topic, with some data to support the theory that sports participation affects tests scores, but other findings that show students think that sports and testing are unrelated. My survey showed that 49% of athletes believed that sports helped them be more prepared for high stakes tests, while 25% remained neutral and 26% disagreed. My interview data had similar ambiguity. Multiple participants talked about handling high pressure situations, and they believed that sports helped them better

handle the high pressure of tests. However, multiple participants claimed that testing and sports were unrelated, and that their sports experience had little or no effect on test outcomes.

Another topic that came up in the literature was the issue of sports versus academic priority. My findings contradicted what I read in the literature. I originally had this topic in the negative effects section because of the study done by Simon et al. in 1999. The authors discussed the idea that sports culture led to athletics taking priority over academics. Other scholars such as Gaston (2002) also referenced this idea but found less conclusive evidence. My analysis strongly challenged this notion, because many participants in my research emphasized the importance of academic priority. 60% of respondents in my survey thought that academics took priority over sports and a further 20% remained neutral. During my interviews, many participants mentioned that they may miss a class here and there for athletic competitions, but that academics always remained a priority in their lives. A possible explanation for this discrepancy is the demographics of the students that I interviewed and surveyed. They were all members of a high-academic division 3 institution which emphasizes the importance of academics and does not offer athletic scholarships.

One study worth mentioning conducted by Barron et al., (2000), who discussed labor market outcomes and wage gaps between former athletes and non-athletes. My findings are not relevant to this study since all my participants are still in college, but it is an area that may be an opportunity for further research.

The findings of my research strongly support the positive impact of sports on academics, which was reflected in most of the literature. My research and the literature emphasized the importance of time management, leadership, and organization/routines. Students learned these skills because of sports participation, which helped them succeed academically. The issues of

high stakes testing, and academic vs athletic priority had contradicting findings. These may provide opportunities for further research. The following section will focus on positive mental and social health benefits.

Mental and Social Health Benefits

My research on mental and social health benefits reflected a lot of what the literature said but also added to it. I found a lot of evidence in my analysis that supported claims from the literature. (Merkel 2013; Datalys Center 2012) In addition, ideas surfaced in my analysis that were not addressed very heavily in any literature that I covered.

The largest theme in the literature was the increase in self-esteem that comes from sports participation, as well as the decrease in negative emotions and feelings such as anxiety, depression, and loneliness. Merkel (2013) found that participation in sports led to increased self-esteem and self-worth. The Datalys Center (2012) reported on teenage athletes and showed statistics that revealed they were more likely to feel good about themselves and less likely to feel sad or hopeless. My analysis supports both these studies through survey and interview data. 80% of my survey respondents felt that sports boosted their self-esteem. Most of my interview participants also mentioned that they gained confidence and self-esteem from their sport, and it helped them develop into a more confident person in other areas.

A topic that was discussed in my interviews was the idea of using sports as a coping mechanism. Not much of the literature covered this idea in depth but I think it relates to self-esteem and the reduction of anxiety and sadness overall that Merkel (2013) discussed. Many participants said they used sports as a stress reliever during their day and added that they would specifically use their sport or exercise as a coping mechanism during a tough time. This was a very prominent issue that came up in my interviews that was not covered in the literature review

very much, but I believe it is one of the most important mental health benefits associated with sports.

Something briefly mentioned by Merkel (2013) was the reduction of risky behaviors associated with sports participation, such as drugs and alcohol. I did not find extensive research on this in the literature, but I felt that there was a general stigma surrounding high school sports toxic party culture. However, much of my data supported the claim that sports participation reduces the use of drugs and alcohol. 75% of respondents in my survey disagreed with the idea that sports made them more likely to use drugs or alcohol. In addition, many of my interview participants mentioned that they did not use drugs and alcohol due to worries about decreasing their athletic performance, as well as time commitments that did not allow them the free time to experiment with drugs and alcohol.

To address social health inquiries, my research focused on the influence of friend and teammate groups. Both Melnick et al. (1992) and Whitley (1999) mentioned athletes getting more involved in community activities and being a part of higher achieving social circles. Over 80% of my survey respondents agreed that the social circle they were a part of played a positive role in their lives. During my interviews, a couple different viewpoints were offered. Multiple people shared that their team was a positive community and brought them happiness and stability. One mentioned that they saw their team as a support group comprised of teammates and coaches that they could lean on. However, some mentioned that they weren't friends with their teammates outside of practice and a couple even said that their team environment was toxic or filled with drama. These findings represented two different perspectives, one of which was supported by the literature while the other contradicted it.

My research supported much of the literature that discussed positive mental health benefits for young student-athletes. (Merkel, 2013; Datalys Center 2012) It reinforced the claim that self-esteem and confidence will grow due to sports participation and added extra information on coping mechanisms that was not covered in my literature review. There was also supporting evidence that sports participation reduced drug and alcohol use and multiple contradicting viewpoints on the social impact of teammates and friends. The following section of this chapter will discuss some of the negative issues that can arise from sports participation.

Burnout and Negative Experiences

The literature on negative sports experiences covered a lot on burnout and specialization, focusing on how young athletes can lose their love and motivation for a sport, and this can lead to deterioration of mental health. My research covered multiple factors that led to burnout and negative mental effects. I did not distinguish between specialized and non-specialized athletes, but the athletes I spoke to covered multiple negative experiences that caused burnout or near burnout experiences for them.

One of the most obvious but most common factors that contributes to a negative athletic experience is injury. Prichard (2022) found that injuries led to some athletes quitting or experiencing extreme mental exhaustion during their career. My research included evidence of injuries hurting athlete's mental health as well as undermining motivation. My survey had an open-ended section where students could share experiences with injuries, and several students indicated that an injury worsened their mental health. They also mentioned negative impacts on social relationships and feelings of isolation. Many of my interview participants were lucky not to suffer any long-term injuries, but those that did had similar experiences and struggles. Injuries may seem to be a result of bad luck in most cases, but I think there can be things done to reduce

the physical stresses on young athletes, so that not as many suffer serious injuries and the broader negative impacts that come along with them.

According to Pritchard (2022), another factor that contributes to burnout is the intense time and energy commitment. Pritchard gave examples of participants having mental breakdowns because there was too much intensity and stress. My research mostly supported these findings. My survey included a question about overwhelming time and stress, and I got mixed results from respondents. However, when I dived deeper in interviews, participants gave multiple anecdotes about their sport getting overwhelming in terms of time-commitments. Multiple athletes spoke about the pressure to fulfill all their athletic and academic commitments, mentioning a lack of sleep and loss of passion for the sport as consequences of the busy schedule. Some interviewees spoke about positive stress that helped them stay motivated and perform, but when it became an overwhelming number of expectations and responsibilities, athletes suffered the consequences, and it affected their mental and physical health negatively.

A large theme that did not come up in the literature I reviewed was the impact of coaching. Some students mentioned good, supportive coaching and others didn't mention coaching at all because I didn't specifically ask about it. However, multiple students in both the interviews and short-form survey responses mentioned abusive coaching or negative experiences with coaching. The students that did mention this had stories of physically and verbally abusive coaching and training that was more than just common squabbles about playing time or small disagreements. Multiple students reported being cursed out at a young age or put through grueling physical practices in their early teens. These experiences are important to flag for further research and should be at the forefront of the youth and high school sports discussion because of the power and influence that coaches have with the minors that they are mentoring.

Jacobs et al. (2003) discussed athletes losing self-confidence when reaching higher levels of competition. This did not come up at all in my research possibly because all my participants were college athletes who had reached the highest level of amateur competition in most cases due to their own perseverance and motivation.

My research found many examples of burnout experiences similar to those highlighted in the literature but did not include the lens of specialization for any of it. I also discovered that the largest theme about negative experience in my research, abusive and negative coaching, was not emphasized in the research I studied and is important to highlight as one of the most important factors impacting young athletes.

Limitations

It is important to address the limitations that my study had in sufficiently answering the research questions posed. Firstly, the sample of students that I interviewed and surveyed was very specific. All my survey participants and interviewees were current Vassar College athletes which means that the data being analyzed cannot be generalized to all athlete experiences, all college athlete experiences or even all Vassar student experiences. The goal of the study was not to try and represent the exact experiences of all athletes in middle and high school, but instead to highlight the experiences of the athletes I did speak to and survey and find themes that may be helpful to research further and that came up in multiple athlete experiences.

Secondly, the demographics of my respondents are important to consider. I did not feel that my sample size was large enough or diverse enough demographically to draw conclusions about experiences based on race, gender, ethnicity, sexuality or even sport. However, further research could be done that focuses specifically on one or two of these aspects and compares experiences.

Another limitation of this study was the time passed since the experiences of the participants in question. Ideally, interviewing high school and middle school students directly might give a more accurate immediate view on how sports are impacting their lives, however I think that my sample of college students provided a unique perspective. College students are not too far removed from high school to have forgotten all their thoughts, emotions, and experiences but they also have a few years of perspective to look back on their time and have processed their experience a bit more.

Finally, my own personal identities will have some bias on how the research is designed, conducted, and analyzed. Most specifically, my identity as a Vassar athlete and my positive experience with athletics throughout my life may influence the research somewhat. However, I took steps to combat this by analyzing and forming conclusions based on the survey and interview data and attempting to keep out my own opinion whenever possible. I also had advisors who helped me design surveys and interview scripts that had questions that were not leading or biased in the way they were designed.

Conclusion

After spending the better part of eight months researching this topic, conducting interviews, and analyzing data I have a couple big takeaways from the results of my research. My original research questions for this project were: “How does participation in high school sports affect students’ motivation to perform well academically?” and “How does participation in high school sports affect students’ mental health and social skills?” I would venture to say that the answer to both questions is that sports participation is beneficial. My takeaways were largely positive, and there was evidence of sports helping academic performance and positively effecting mental health. Socially, there was more conflicting evidence but most of the data points to positive social circles formed from sports.

The data from the research was overwhelmingly positive. The majority of survey respondents and interview participants gave answers that portrayed sports as a positive influence on multiple aspects of their life. These people also highlighted the many academic, mental, and social benefits that sports provided them. Based on these results, I think that parents should encourage their kids to participate in sports if they want to, and initiatives to create better physical education programs and more organized youth leagues should be supported.

While the takeaway from the data was largely positive, there were some negative experiences highlighted. I believe that some people can end up in the wrong situation and environment and this can lead to detrimental effects. Parents of young athletes and athletes themselves should make sure they find the best athletic environment for them and shouldn’t be ashamed or afraid to leave or quit if the situation is not right. On top of this, youth coaching seems like an issue that should be researched more and exploring ways to improve coaching training and qualifications might be useful in the same way there has been a recent effort to help

recruit and train better teachers for American schools. Finding a balance between athletics and academics that works for students is another important factor that can help young athletes get the best out of themselves in both environments and still have free time for leisure.

Sports are and most likely will continue to be a huge part of American youth experience and culture. Youth athletics have room for improvement and research should continue to be done to see how else sports can become more beneficial for the younger generation to get the most benefits from it. However, my research highlighted many positive experiences related to sports participation that led me to conclude middle and high school programs should be here to stay and can vastly improve the lives of many adolescents.

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