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An Ethical Analysis of Sports Specialization and the Harms it Poses to Youth Athle	etes

by Caleb Bohannon

A thesis submitted to the faculty of The University of Mississippi in partial fulfillment of the requirements of the Sally McDonnell Barksdale Honors College

Oxford May 2024

Approved by

Advisor: Dr. Zachary Vereb

Reader: Dr. Laura Prior

Reader: Mr. Kris Brasher

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Abstract

An Analysis of Sports Specialization and the Harms it Poses to Youth Athletes

(Under the direction of Dr. Zachary Vereb)

Whereas youth sports in the United States were once commonly funded by local or state park and recreation commissions, current commercialization trends within the industry have caused youth sports to become increasingly commodified. Now, youth sports use private pay-to-play, or "competitive" sports models. Attempting to maintain a competitive advantage over their peers and further their athletic pursuits in this context, more youth now seek to specialize in their respective sports. When youth specialize, they focus their participation on a single sport for most of the year, which interferes with their participation in other sports and activities. This thesis explores neglected ethical problems with youth specialization from the philosophical vantage of sports ethics. My thesis is that youth sports specialization, as it is currently practiced in the United States, is morally unacceptable. To make my case, I explore the physical, psychological, and social harms youth athletes commonly face when they specialize. I employ a pluralistic approach that relies on common ethical principles from bioethics and sports ethics to argue that specialization violates these principles. Lastly, I outline policy prescriptions aimed at making youth sports specialization more ethical in the future. More specifically, I look to international models to suggest means of reform, such as mental health screenings, financial assistance, and continuing education requirements for coaches and related authority figures. This thesis aims to motivate further research into the practical dimensions of these prescriptions so that they can be made more feasible and effective in an American context.

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Introduction

Every year, as many as 60 million children and teens sign up to play for organized sports teams (Intensive participation, n.d.). Some estimate that the youth sports industry is valued at 19 billion dollars (Growth in youth sports, 2022). Serving nearly 60 percent of those between the ages 6 and 17 years, this industry offers youth a wide variety of sports to choose from such as basketball, football, volleyball, soccer, softball, and baseball (Growth in youth sports, 2022). Depending on their availability – which usually varies from region-to-region – youth may also have the chance to play individual sports. Such sports include gymnastics, table tennis, archery, skateboarding, surfing, and martial arts, among others.

Aside from providing youth with a chance to play a sport, community-organized youth sports programs provide a host of benefits, such as teaching children and teenagers important life skills. As a team member, participants learn how to collaborate and communicate with others. For example, in competition youth have opportunities to be resourceful when they encounter sport-specific and interpersonal problems, cultivate compassion when their teammate makes a costly mistake, and demonstrate integrity if the referee misses a call but they know they committed a grave violation. In short, youth can develop a strong work ethic and become disciplined, which sets them up for further challenges in life. These are only a few of the personal benefits available to youth who participate in sports.

Participants also benefit socially from playing youth sports, since they have the chance to connect with peers. Many youth are able to form strong bonds with teammates or even their rivals on a competing team. Such bonds can even turn into full-fledged friendships. The skills and opportunities that these programs provide are important because they can have such a strong and lasting positive impact on children and teens, such as the cultivation of empathy.

It is, in addition, no secret that youth sports can help children and teens maintain a healthy weight and blood pressure and stay in overall healthy shape. The positive impacts of sports participation on physical health go far past that. Such activities can instill healthy habits such as routine exercise and the avoidance of substance use. In fact, teen athletes are less likely to use hard drugs and tobacco than their peers who do not participate in sports (Jegtvig, 2013). Besides weight, blood pressure and substance abuse, youth sports participation is associated with lower risk of serious health conditions and other preventable diseases (Black et al., 2022). It can even lower the risk for certain cancers. For example, the National Institutes of Health reports that women with higher levels of exercise even in their childhood had significantly reduced their risk of breast cancer later (Niehoff et al., 2017). In these ways, youth sports can yield positive, long-term impact on the personal, social, mental, and physical health of those who participate. All seems well. However, as we shall soon see, there has been a shift in the youth sports industry in the last few decades.

For a long time, youth sports programs were funded and facilitated by city park and recreation departments or related community-based non-profit organizations (Clement, 2023). This structure had one important function, namely in ensuring that the

services would be, at least in principle, accessible for all interested parents and youth regardless of their socioeconomic status, race, or sex. Under this model, parents faced fairly reasonable costs. So all could potentially gain from the aforementioned benefits. Under the older model, it would be typical for parents to pay for registration costs, their child's jersey, and contribute for team snacks. This, of course, was no insignificant cost for those at lower income brackets. However, when contrasted with more recent and costly trends due to youth sports commodification, these costs and entry requirements for traditional community-based youth sports appear much more reasonable.

Commodification Within the Youth Sports Industry

The present thesis focuses on the ongoing trend toward youth sports commodification. Vamplew (2018) notes that a sport becomes a commodity when consumers are willing to pay to play it or when it has a potential exchange value. Thus, youth sports commodification can be viewed as the increase of companies entering the youth sports industry that are principally driven by financial gain. This stands in contrast to previous eras of youth sports in which leagues, teams, and coaches were community-based. The trend of increasing commodification in youth sports has caused the aforementioned community-oriented sports model to become less prevalent and, indeed, in many places, a mere thing of the past. Meanwhile, for-profit youth sports programs and teams are appearing in its place, and they operate according to very different incentives. Some commentators refer to such programs as "pay-to-play" sports models or even "competitive" sports (Blair, 2022). However, seeing as all of these terms highlight the change in the nature of youth sports toward – more commodification, privatization,

and emphasis on competition – I will consider them to be interchangeable for the purposes of this thesis.

Comparatively, current youth sports programs are far more profit-driven than the community youth sports programs of the past. In attempting to maximize profits or boost the value of their services, companies have sought to provide consumers with new opportunities. Besides emphasis on profit over community and personal growth, the reference point of agents has also changed. Now, youth and their parents are treated as mere consumers, whereas they used to be seen as a family looking to enroll their child in youth sports to spur their development. Due to the emergence of competitive youth sports or pay-to-play sports, these sports no longer serve as avenues for youth to simply learn the sport, develop the appropriate acumen, better their physical health, or make friends. Instead, the youth sports have become an investment.

USA. Perfect Game USA is an that organization strives to host amateur events of the highest quality and other meaningful opportunities for youth baseball players (About Perfect Game, n.d.). One way they do this is by hosting widely publicized tournaments and showcases for their athletes, who are sometimes as young as 8 years old. Admittance for these tournaments can be costly. David Dorsey (2016) reported that tournament fees for youth baseball teams can cost between \$750 and \$3000. On top of this, their families must still pay for travel and housing accommodations (Dorsey, 2016). Customers who decide to register for events hosted by Perfect Game enjoy the ability to compete against the best in their age group. This organization's consumers benefit from this because it enables them to gain exposure from college coaches and scouts. Perfect Game is able to

garner enrollment due in part to its reputation. In motivating top prospects to play in their events, they are able to supply college scouts and top prospects with a reservoir of upand-coming talented players. Due to these strong ties with college scouts and the fact top players participate in their events, youth players often feel compelled to play in them. As a result, this organization has become the "world's largest baseball scouting service" and earns millions from servicing these consumers (Dorsey, 2016).

Nike's Elite Youth Basketball League (EYBL) serves a similar function for youth basketball players in this new marketplace in sports. They host a variety of regional tournaments that culminate in the Peach Jam. The Peach Jam tournament is an exclusive event that invites the nation's best blue-chip travel basketball teams, based on their overall performance in the other league events. The event is prestigious because the teams that compete it in often feature highly-ranked college and professional prospects. Several players who participated in the event even went on to enjoy successful NBA careers. These players include the likes of Anthony Davis, Jayson Tatum, Trae Young, and Bradley Beal (FOX Sports, 2021). Given this reputation of hosting future NBA talent, college and professional scouts regularly attend the event (Bass, 2023). In fact, the event is so major that fans can actually view the games on the NBA app or NBA TV (NBA Staff, 2023). Thus, the Peach Jam tournament is a must-stop destination for aspiring collegiate and pro basketball players and helps the Nike EYBL bring in a reported 4.5 million in annual revenue (Nike EYBL, n.d.). Both Perfect Game USA and the Nike EYBL illustrate that commodification has the potential to benefit youth sports operators and participants, but it comes with a (moral and economic) cost.

The Unaffordability of Youth Sports

One important ramification of the sector's increased commodification is that it has yielded inequities. The Aspen Institute reports that the average family spends nearly \$900 on one child's primary sport (Costs to Play Trends - Project Play, n.d.). Although this expense is sustainable for higher-income families, this is not the case for lower income families. The New York Times reports that while 70 percent of children from families with an income of \$105,000 participated in sports, only 31 percent of children from families at or below the poverty line were able to (Richtel, 2023). Also important is the fact that among lower income families, the level of healthy activity has also fallen from 34.1 percent in 2013 to 26.6 percent in 2021 (Physical & Mental Health Trends - Project Play, n.d.). This data suggests that a youth's ability to participate in youth sports is influenced by their family's income. Thus, for many families, despite their potential benefits youth sports may be inaccessible.

Even if lower income families are able to participate in the youth sports industry, their experiences may be quite different than those with higher incomes. To illustrate this, consider the case of Kamiyah Vasquez, a 14-year-old basketball player who played for a community-based team coached by her father (Stubbs, 2022). Kamiya, aspired to play collegiate basketball. Her father recognized, however, that as long as she were on her current team, she would be disadvantaged. More well-funded travel teams would allow her to compete at higher levels and enjoy access to certain resources and scouting. All of these would help improve her chances of earning a collegiate scholarship. To this end, the family began to save so they could eventually register her for a travel team (Stubbs, 2022). However, between registration and travel expenses, the move would cost the family thousands (Stubbs, 2022). Given that the family was already scraping by to make

ends meet and due to have another baby soon, incurring additional expenses from sports participation would not work for them. Despite this, the family continues to save in hopes that one day they will be able to put their daughter on a travel team and empower her to achieve her dream.

In this way, increasing commodification – which exists in a wide variety of skill development programs, personal trainers, sports teams, etc. – has by no means benefitted the income gap within the youth sports industry. Thus, income not only influences the ability of a youth athlete to participate in the sector, but it actually bears influence on the outcomes they can experience as well. Due to perceived disadvantages for youth athletes – particularly those competing on community teams – many feel it is necessary to utilize the more expensive alternative: competitive travel teams. In addition, others feel that they must enlist the help of personal trainers and private trainers, whose services are not cheap. Motivated by aspirations to play collegiate or professional sports, commodification and the perceived advantages of its impacts have prompted youth athletes to consider specialization as the best means to achieve success.

Specialization within the Youth Sports Industry

Sports specialization refers to the intentional and focused participation in a single sport for the majority of the year such that it restricts opportunities in other sports and activities (Bell et al., 2021, 1243). Athletes who specialize before they start high school are said to have specialized early. Interestingly, there are some sports where youth athletes must specialize early in order to be competitive – like gymnastics, figure skating, and even diving. This is because athletes in those sports hit their peak performance level before they reach full physical maturation (ActiveKidMD, 2018). Drawing on a report

from the *American Academy of Pediatrics*, this thesis will limit early specialization to be understood as involving specialized practices and training regimens that involve athletes before they reach puberty (Brenner et al., 2016). Overall, this thesis explores youth sports and youth specialization, so it will focus on youth athletes between the ages of 6 to 17 who participate in team sports.

Motivates for Youth Athletes to Specialize

The perceived value in specialization is driven by the debunked 10,000 hour rule regarding expertise. The 10,000-hour rule asserts that athletes need to accumulate over 10,000 hours of deliberate training before they can truly master a skillset, and mastery is only a precursor to becoming a top 1%, elite practitioner in an activity (Ingle, 2019). Despite the fact that various researchers, have presented persuasive reasons why we should reject this rule, i.e., that it is neither backed by science nor the experience of the majority of athletes, the idea still persists (Ingle, 2019).

Influenced by the 10,000-hour rule, the parents of Bryce Young, former Heisman winner and former Alabama quarterback, decided to have their son specialize in football. From an early age, Young's parents recognized that their son had undeniable talent and skills to be a "special" quarterback (Morales, 2021). In hopes to bolster the development of his son into a future NFL quarterback, Craig Young had Bryce begin formal training as early as age six. By 6th grade, he began training with quarterback guru Danny Hernandez. As he aged and progressed, he trained more intensely with Hernadez and his strength and conditioning coach sometimes as often as six times a week. Since he devoted so much time and effort in training year around for football, he stopped playing basketball around

middle school. In other words, Bryce Young had specialized in football in hopes that it would help him be a starter at a D-I (Division 1) university and play in the NFL.

Besides resulting in positive sports outcomes due to specificity of training, some believe that specialization and youth sports can provide an avenue for low-income families to afford college. This option has become widely believed due to a nationwide increase in tuition and college-related expenses. Since the start of the century, average tuition has increased by 65 percent in the US (USAFacts, 2023). In consequence, college has become increasingly unaffordable for those with disadvantaged socioeconomic backgrounds. The National Association of Student Financial Aid Administrators reports that only 5 percent of colleges are accessible to low-income students. Even for wealthy students, which are from families with incomes higher than \$160,000, only about half the colleges were affordable (Bidwell, 2017). As a result, over 45 million people carry student loan debt (Koeze & Russell, 2022). Thus, the rise in the cost of college has made it significantly less affordable for families.

For youth athletes who do well in sports like football, basketball, and baseball, scholarships they may obtain can fully cover their cost of attendance. In response, some families have begun to make extensive investments in performance training and competitive sports teams. In having youth focus on single sport and utilize such training, families believe it will enhance their chances of earning an athletic scholarship. On top of that, families are aware of impressive anecdotes, such as athletes like Sheddeur Sanders, Paige Bueckers, Olivia Dune, and Bryce Young who earned millions from sponsorships and deals due to the NIL changes. Quincy Avery – a private quarterback coach who has trained NFL QBs like Jalen Hurts, Deshaun Watson, and Dwayne Haskins – commented

that some parents had invested over \$100,000 toward the athletic development of their children (Morales, 2021). This signals that youth and their families may be willing to make rather extreme investments in youths sports and specialization, sometimes with little knowledge as to the prospects for their specialized youth to actually obtain scholarships and professional careers in sport.

An Overview of Problems Associated with Sports Specialization

In most cases where parents believe their children will earn scholarships, those investments in sports specialization are unwise. This is because research shows that the most elite athletes achieved this status by holding a unique combination of both substantial experience and innate ability (Georgiades et al., 2017). In other words, elite athletes can be built, but only from those possessing natural talent, which is incredibly rare. With sports commodification, by contrast, parents are sold the idea that the purchase of training will be adequate to secure rare genetic talents that their children may not have. So, despite any perceived benefits, specialization could be a fruitless endeavor in the pursuit of becoming an elite athlete if the youth athlete does not already possess innate skills for the sport.

Specialization could also be unwise if parents invest an amount that exceeds the value of athletic scholarships. So, while some families may be willing to shell out \$35,000 for specialization or youth sports expenses, this may not be the best use of a family's income to (Picchi, 2019). The same could be said for those that opt to take on more debt due to youth sports-related expenses (Schiff, 2022). Despite the fact that supposed incentives of specialization may appear reasonable given the onset of commodification in youth sports, it is questionable whether these actions are rational

given the incredibly low chances of even youth athletes earning collegiate scholarships or becoming a professional.

Yet, even if it does contribute to positive sports outcomes or success, it might do so at great expense. Bryce Young's father reports that this specialized training cost the family nearly \$1,000 per month (Morales, 2021). Over the course of a year, these training expenses totaled nearly \$12,000 (Morales, 2021). But the expenses did not end there. Additional expenses included participation fees for his son to play in summer football camps and seven-on-seven leagues, and visits to various colleges. For all of Bryce's high school career – and even some of his middle school years – Craig estimates that the family spent nearly \$15,000 per year toward such expenses (Morales, 2021). If he accounted for the expenses the family incurred while traveling for these camps, club games, campus visits, and training sessions, then the estimation would be much higher. Sports specialization can be a very costly endeavor. To be sure, there may be benefits for youth to participate even if they lack elite genetics, and even if the costs are no problem for well to-do families. However, what is often left out in these discussions, and also in the sports ethics literature more generally, is the extent of the problems associated with these practices. I will touch on these below, elaborating on them in later chapters.

Sports specialization, due to its highly repetitive nature, as we will see, can negatively impact a youth's wellbeing in a variety of ways. When youth specialize, they may endure a high volume of intense workouts or games. The repetition of such activities over an extended period of time puts immense wear and tear on the athlete's body, thereby compounding the risk for injury. In this way, specialization can negatively affect a youth's physical health. If a youth athlete opts to train or compete in a sport all year

against expert advice, they become much more likely to experience burnout, which has both physical and mental repercussions. Such feelings could lead them to exit the sport. Lastly and relatedly, specialization can be time and energy intensive for youth athletes. In working to develop their athletic acumen, youth may focus less on performing well in school and even participating in extracurricular activities. So, specialization could result in youth performing worse academically. Due to these financial, physical, mental, and academic harms, specialization can impact the overall wellbeing of youth athletes and their family. I will explore these specific risks and the literature surrounding them in greater detail in Chapter 1.

Aim of this Thesis

Many overexaggerate the efficacy of specialization as a way to entice youth and their parents to pursue their services. Consequently, some over-invest in these means, believing that such resources will undoubtedly result in the attainment of athletic scholarships at major universities or eventually a spot on a professional sports team. This is tantamount to selling a product or service without transparency as to its risks, something we all agree is ethically required for other services and products we purchase, such as food, pharmaceutical prescriptions, or automobiles. The commodification and over-selling of youth sports specialization programs and methods mislead athletes and their parents into believing that specialization will make or break their athletic career. Due to these factors, sports specialization is sold and discussed as a safe, effective, and essential avenue for youth athletes to pursue collegiate or professional sport aspiration. This thesis will provide a cautionary tale here. It is anything but that.

As it is currently pursued in the southern US, youth specialization in sports is ethically unacceptable. This thesis attempts to justify this claim as to the unacceptability of youth sports specialization in a southern US context by considering empirical information on associated physical and mental health impacts, fairness problems associated with the youth sports industry, and perverse economic incentives that drive these issues, rendering them opaque rather than transparent to youth and their families. To do so, I will utilize a pluralistic approach, appealing to generally accepted ethical principles drawn from the literature in bioethics and sports ethics. These include the principles of autonomy, nonmaleficence, and justice. I appeal to these principles to demonstrate how current practices associated with specialization are morally impermissible. Using the same principles, I outline more ethically justifiable means of reform to this industry. While we cannot return to the community-based model of before, we can put safeguards in place that better protect youth and their families, allow for fairer participation, and ensure that operators such as coaches and trainers are held accountable for being knowledgeable as to the negative impacts of overspecialization for youth. I conclude, in the end, that for youth sports to be more morally acceptable in the US, ethical standards prohibiting (or at the least severely limiting) early youth specialization are required, and that we find models of appropriate ethical standards from sports guidelines in the EU.

Gap in the Literature

There is a wide variety of academic literature on topics in sports ethics on youth and early adult sports (Artis 2022; Corlett 2014; Russell 2007) but little of this literature focuses on the specific obstacles associated with youth sports specialization or the

commodification of youth sports more generally. Consequently, there is a lacuna in the literature, a gap this thesis aims to fill on an important topic of relevance to ethicists, policymakers, and practitioners. To fill this gap, this thesis will primarily focus in on specialization and explore its impacts on youth athletes to gauge its ethical permissibility.

Besides filling a needed gap in the literature in sports ethics, the present thesis motivates the necessity for creating a universally accepted definition for youth sports specialization, which has value to academic commentators outside the philosophical literature, including those publishing in exercise science and related fields. Furthermore, my research and its prescriptions as I discuss in the last chapter, could be used by advocates to defend more acceptable methods for future practice, therefore having an important applied value for education policy and related community outreach. On a more individual level, it is my hope that this research will help to inform practitioners and youth athletes of the risks of sports specialization, and reduce the harms for those which opt to do so. In the least, it should alert readers to problems within the youth sports industry. They should realize that early sports specialization, in addition to the over commodification of our youth athletes, is problematic and has several implications — many of which merit serious attention.

Overview of Subsequent Chapters

Besides this introduction and a short concluding chapter, this thesis is divided into four parts. In Chapter 1, I provide context on the physical, mental, and social impacts of specialization in youth sports, impacts that were only touched on in this introduction. I do this to highlight the severity of specialization practices and its deleterious impacts, which will in turn help to motivate my central argument in Chapter 3 and inform my policy

prescriptions for youth sports reform in Chapter 4. After providing the relevant empirical background from literatures in sports ethics, bioethics, and applied ethics, Chapter 2 will set the stage for my argument. More specifically, I will survey various attempts by commentators in applied ethics and related philosophical fields as they touch on youth issues. My goal is, first, to show that commentators in sports ethics, while they do cover important issues as they relate to youth sports, fail to address the challenges of youth specialization discussed in Chapter 1. This helps to show the contribution my thesis makes to that literature by filling out an important gap. Second and more importantly, my survey of the sports ethics literature provides me with the opportunity to defend the ethical approach that I use as an assessment tool of youth specialization in Chapter 3. Chapter 3, subsequently, articulates that ethical principles used to defend the impermissibility of current specialization practices, where they are then used in Chapter 4 to make suggestions for more defensible alternatives for the future of youth sports.

Chapter 1: Background

Chapter Overview

In the introduction, I explained how increased commodification changed the landscape of the youth sports industry and turned it into a multi-billion-dollar sector. Among these changes were the emergence of more competitive sports programs or pay-to-play teams and leagues and an increased entrance of private trainers, coaches, and scouting services into the industry. These changes are significant because they have on the one hand, reduced the accessibility of youth sports for many. Whereas youth sports used to be affordable, they have since become unaffordable, resulting in lower-income families being priced out of the sport. On the other hand, these trends have motivated youth and families to pursue the promise of specialization.

Specialization refers to the intentional and focused participation in a single sport for the majority of the year such that it restricts opportunities in other sports and activities (Bell et al., 2021). One rationale posed by youth sports operators is the perpetuation of the idea that specialization is necessary for youth who aim to earn collegiate scholarships for their sports acumen or pursue professional careers. While specialization can aid youth in mastering certain skills, there is no concrete evidence that it results in an athlete becoming "elite." Instead, research shows, as I explore below, that early specialization poses risks to physical, mental, and academic wellbeing. In addition, it can negatively impact a family's financial wellbeing. In the following sections, I will outline these

harms. In doing so, it should become apparent that although specialization has attributed to positive outcomes for some athletes, for others its risks outnumber its proposed benefits.

Specialization and its Impacts on Physical Health

Overuse Injuries

Overuse injuries occur when an athlete fails to rest adequately following intense, repetitive training, otherwise known as overtraining (Goolsby, 2021). Athletes who overtrain may experience side effects such as fatigue and declining athletic performance. Most notably, overtraining increases the likelihood that an athlete will suffer an injury – whether it be in competition or during training (Goolsby, 2021).

Research indicates that youth specialization gives way to overtraining. The National Athletic Trainer's Association suggests that the number of hours a child spends training should not exceed their age (Rabin, 2019). So, if a child is 13 years old, then they should not practice or play more than 13 hours per week in aggregate. Yet, in many cases, the frequency and duration of time a specialized athlete spends in sport-specific training exceeds the recommended thresholds for youth and teen athletes. In fact, data indicates the incidence rate of overtraining to be between 20 and 30 percent, with higher incidence among single sport athletes (Winsley & Matos, 2011). Parents and coaches often ignore these thresholds because they believe that extra hours of practice will pay dividends in the long run. They may imagine, for example, that extra time spent in the gym or weight room will result in their child outperforming others in their age group. Optimistically, they hope it will contribute to their mastering of the sport they play. In

this way, it seems that remnants of the debunked and obsolete "10,000 Hour Rule" continue to influence the training habits of current youth athletes.

To make matters worse, sport-specific training tends to overemphasize sports-specific muscle groups. The limited range of this training increases the likelihood that some muscle groups will be overworked, while others will be underworked, potentially leading to imbalances and injury risk. Although data is limited, nearly 30 percent of young athletes train too frequently (Matos & Winsley, 2007). In the best-case scenario, these unsustainable, high-volume workouts can result in positive gains in skills or for abilities – for up to two years in some cases. However, after this period of initial gains, an athlete typically experiences a decrease in skill acquisition and even performance. In the worst-case scenario, such training habits could sideline an athlete with a serious or traumatic injury. If severe enough, the athlete may never recover or have the same functionality in that body part which they had prior to that injury.

Traumatic and Serious Injuries

It is common for youth athletes who specialize to engage in a high volume of vigorous exercise (Benson, 2019). While this can help them get in shape or develop skills, it carries a major downside. These training habits can be quite detrimental to the health of these youth athletes. This is corroborated by a study from the *Orthopaedic Journal of Sports Medicine* that found that those who engage in the most hours of intense or rigorous activity per week are the most likely to suffer injuries (Field et al., 2019). Besides the increase in risk for overuse injuries, athletes face an increased risk for traumatic or serious injury. Researchers characterized these as injuries that were serious or required a surgery that forced the player to refrain from sports for an entire year (Field

et al. 2019). Injuries fitting this definition included but are not limited to stress fractures, ACL tears, and other serious injuries.

Despite undergoing surgery or extensive rehab to treat a traumatic injury, athletes may suffer chronic pain even after their recovery. John Hopkins Medicine defines chronic pain as longstanding pain that persists beyond the usual recovery period (Chronic pain, 2021). In addition, they note that it can stem from previous injuries or surgeries. In regard to sports injuries, it is common for athletes to suffer chronic pain even years later. Oftentimes, this is the case when athletes fail to receive proper care for an initial injury or when treatment for this injury is ineffective. Given the link between sports injuries and chronic pain and the fact that specialized youth athletes are more likely to suffer serious injuries as well as to push through injuries due to the specificity of their training, it seems reasonable that they would also face an increased risk for chronic pain. In this way, sports specialization can increase the chances for a youth athlete to sustain a traumatic injury or suffer chronic pain.

Tommy John Epidemic

One occurrence in youth sports that illustrates the strong link between serious physical injuries and sports specialization is the Tommy John Epidemic. Tommy John surgery is a process by which an athlete's torn ulnar collateral ligament (or UCL) is surgically repaired by replacing it with a tendon from elsewhere in the patient's body. If done properly, the surgery can stabilize, reduce pain, or even restore full range of motion to the elbow (Tommy John Surgery, 2021).

Over the past two decades, the number of youth baseball pitchers who have undergone Tommy John surgery has risen (Mollo, 2020). According to a study from the

American Journal of Sports Medicine, researchers found that over half of Tommy John surgeries were performed on athletes between 15 and 19 years old (Erickson, 2019). One explanation is that pitching puts such an intense load of stress on a pitcher's elbow that it can wear down the UCL – eventually to the point that it tears and requires surgical repair. The higher number of cases can be attributed to the fact that specialized youth athletes are pitching too often. A study found that pitchers ages 9 through 12 that threw more than 600 pitches per season or over 75 pitches in a game were far more likely to require the surgery than those who did not (Dodson, 2019). Factors such as longer training and competition seasons and participation on multiple baseball teams make it far easier to exceed these thresholds (Dodson, 2019). As athletes continue to specialize like this, more athletes will suffer torn UCLs due to lack of proper rest or overuse and thus need Tommy John surgery. This will likely continue to be the status quo until US youth baseball and coaches – private trainers included – prioritize enforcing pitch-count rules. This matters because, it could take a youth pitcher anywhere from 12 to 30 months to fully recover from this injury (Zaremski et al., 2019). While, in other cases, it could completely derail their career. If athletes are able to make a full recovery, it could take them longer to reach the level they were at pre-injury. At which point, they may suffer chronic pain from the initial injury. All in all, this case provides a concrete example of how specialization can implicate high injury rates for athletes in certain sports.

Specialization and its Impacts on Mental Health

Given the motives in play – such as increased drive for athletic success, the obtainment of athletic scholarships, the pursuit of a professional athletic career, etc. – specialization can put undue psychological and social pressure on youth athletes (Brenner

et al., 2019). Youth who specialize are expected to prioritize training and competing so they can work toward becoming an elite athlete. Yet, specializing predisposes them to inadequate sleep, social isolation, decreased family time, and even increased anxiety. Such conditions create the perfect storm for specialized athletes to experience high degrees of stress, even burnout.

Burnout and Overtraining Syndrome

Raedeke and Smith (2001) broadly define burnout as a combination of emotional and physical exhaustion, reduced level of accomplishments, and sport devaluation Specifically, burnout that afflicts athletes is defined as a syndrome of emotional and physical exhaustion resultant from training or competition, reduced sense of accomplishment, and sports devaluation (or a cynical attitude towards sports participation (Giusti et al., 2022). This occurs when athletes do not rest adequately from training and competition. Athletes who are burnt out can experience symptoms such as more physical exhaustion and less emotional connection (Deno et al., n.d.). This is due to the immune system's diminished response and the toll intense training can take on the body. So, if an athlete sustained an injury or illness, their body would take longer than normal to recover. Another major effect is decreased motivation. Strong feelings of being burnt out can prevent even the most driven athletes from staying disciplined and sticking to their training regimens when the sport becomes demanding (Deno et al., n.d.). For this reason, adequate rest is important. Not only does the athlete's body need to be reset, but also their mind. Although the amount of time needed for this reset is different for everyone, it is important for every youth athlete take the necessary time off between seasons, especially

given that youth are still developing cognitively, and any impacts on their development can affect them well into adulthood.

Mental Health Issues Among Specialized Athletes

For specialized athletes, there is little time out of the year when they are neither in competition nor in a training schedule for months at a time. In addition, these athletes are driven by the parent-pressured goal of earning an athletic scholarship to college or ambitions to play professionally (Deno et al., n.d.). From this perspective, sport-specialized training is not much different from a job. Similarly, to a job, athletes may view this training as a burden they must endure in order to recoup a benefit later down the line. If their routine is too intense and monotonous it could cause them to become less passionate about the sport. There are good reasons why we have laws that enforce limits on the work week for teenagers, so it also makes sense to think of the need for analogous limits to sport.

While specializing conditions wear out athletes physically, they also have a profound impact on their emotional state (Barker, 2022). As mentioned earlier, specialized athletes face intense pressure in a variety of ways, including but not limited to high profile and consequential competitions, training demands, and parental expectations. It is also important to consider that a large degree of pressure comes from athletes themselves. Kelsey Griffith, a specialist for the Micheli Center for Sports Injury Prevention, noted that athletes who gauge their athletic development on whether they win or lose tend to be overly critical of themselves (Griffith, cited from Barker, 2022). Those who attach their self-worth to their athletic skills may feel like they are not good enough. If this self-doubt results in a drop in their athletic performance, it can further propel

feelings of discouragement. The emotional exhaustion that results from the need to be the best rather than a desire to have fun within a sports community causes athletes to lose both joy in the sport and the motivation to keep trying (Barker, 2022). If the burnout is severe enough, they may opt to forgo playing the sport or quit sports altogether.

Cases of Burnout and Overtraining Syndrome in Athletes

While this thesis emphasizes the impacts of sports specialization on younger athletes, its associated problems affect even elite, professional athletes. Women's professional tennis player, Naomi Osaka, made headlines after announcing she would be withdrawing from the 2021 French Open to take time away from the sport. She felt this was needed given her recent bouts of depression. On top of that, she felt that her feelings of burnout had become too serious to ignore (Kelly, 2021). While tournament officials and executives were not pleased with her decision, many other professional athletes – Stephen Curry, Michael Phelps, and Russell Wilson to name a few – came out in support of her decision. Michael Phelps recounted a similar experience where he suffered "post-Olympics depression" after winning six gold medals in the 2004 Olympics (Capatides, 2018). But rather than take time to himself, Phelps attempted to push through. Only when he hit his boiling point and his depression got really severe, did he finally decide to seek help. This allowed him to effectively deal with his depression and to return a state of peak performance.

If elite athletes that are the best in their respective sports are so heavily impacted by this mental health condition, then surely there are many specialized youth athletes who also suffer from this problem, especially given what we currently know about mental problems health in sports. A study of youth swimmers found that youth who eventually

dropped out of the sport were engaged in fewer extracurricular activities (Fraser-Thomas et al., 2008). In addition, they spent far less time participating in "unstructured play swimming" (Fraser-Thomas et al., 2008, 325). So, when these athletes did swim, they usually did so in practice or competitions rather than recreationally. From these results, Fraser-Thomas et al., (2008) identified a link between burnout and specialized practice among youth swimmers. Given this link between intensive sport participation and the occurrence of burnout, it seems logical that it could impact specialized, youth athletes at a higher rate.

Other Significant Issues Associated with Specialization

Academic Progress

Aside from its health-related impacts, specialization can also disrupt academic progress. The choice to specialize in a sport involves an extensive time commitment. This time commitment is so extensive that it often prevents the athlete from participating in other extracurriculars. For this reason, some experts define sport specialization as "focused participation which restricts opportunities to participate in other activities" (Bell et al., 2021, 1243). Seeing as the life of a specialized, youth athlete mostly revolves around their training or pursuit of earning an athletic scholarship, it makes sense that this commitment would also interfere with their academics. In fact, according to some research, early sports specialization can detrimentally affect a youth's academic performance (Ashley, 2017). It should be easy to imagine that if a youth specialized athlete spends most of their weeknight's training or competing, they might not have much energy left to put toward homework or studying material that was discussed earlier that day. Seeing as these are the main ways students gain mastery of new skills and concepts,

it makes sense that youth may have increased difficulty learning with these skills. Thus, sports specialization could result in poor academic outcomes for youth (Brenner et al., 2019).

Participation in School Extracurriculars

These aforementioned obligations also might prevent youths from participating in clubs and school-related extracurriculars like student council, Beta Club, Model United Nations, and National Honor Society. If it is true that specialized youth spend nearly four to six hours training somedays, then it would come as little surprise that they have no time to put toward extracurriculars (Spulnick, 2023). After a long and intense workout, they may be too tired to go participate in other activities, let alone do their homework. It also could be difficult for them to do so if they have several games scheduled throughout the week. If their games or practice session is located outside of the immediate area, then traveling to and from this destination could also cause it to be inconvenient or impossible for a youth athlete to do student council, beta club, and other common extracurriculars that could benefit their development. This matters because a person's school and community involvement end up being important considerations among undergraduate admittance committees (Patel, 2019). Consequently, students who are most extensively involved in their school and even their community typically have more favorable odds to be admitted to a college or university than those who are not very involved. If specialization prevents a youth from participating in several school activities, one could argue that it not only hurts their academic progress but could inadvertently affect their chances of getting into certain colleges and universities as well.

Costs for Families of Specialized Athletes

Specialization can be quite costly for the families of youth athletes. Given that specialized youth often participate on competitive or pay-to-play youth teams, it is common for parents to face exuberant costs. Recall that youth sports can cost families nearly \$900 on average (Costs to Play Trends - Project Play, n.d.). But for families whose youth are playing the most expensive sports, soccer and basketball, these expenses are in the thousands (Costs to Play Trends -Project Play, n.d.). A further breakdown of this spending reveals that expenses may include registration, league fees, gear, tournament fees, even extraneous specialized training. The registration fee alone could cost several hundred dollars (Keenan, 2024). It could even be higher depending on the competitive level of the team, its location, and the reputation or prestige of the team or program.

Yet, the costs do not stop there. If the youth athlete has a tournament that is quite far, then the parents would need to pay for lodging (for multiple days). Depending on the competitive level of the team, the coach may schedule multiple tournaments over the course of a season. In consequence, lodging could become a routine expense for families. The same could be said for food expenses while traveling to and from these tournaments. The Sports Events and Tourism Association states that youth sports tourism generated 91.8 billion dollars in economic impact in 2019 (Sports ETA, 2022). In the same way that food, travel, and lodging can generate significant economic impact for cities hosting these amateur events, these expenses can constitute a sizable portion of a family's sports-related expenses (Schiff, 2022).

Another important consideration is that specialized sports participation may require parents to take time off from work. When youth participate in a sport, their parents are typically responsible for ensuring that they have transportation to and from practices, meetings, competitions, and private training. If activities such as training or competitions require them to travel, then it could cause them to miss more work.

Although there is a lack of data regarding how often parents miss work for sports-related obligations or the value of income lost from doing so, we know it can be problematic given how time consuming the aforementioned activities can be. The main problem then becomes a problem of fairness, since more affluent families may be more able and willing to take the time off. While some families may be in a position to do, not all families are. For lower-income families, this decision could leave them worse off as it could force them to make significant cuts in their spending, or students will miss out on the perceived benefits of specialization. By inflating sport-related expenses and forcing parents to take time off from work, specialization can incur significant costs on the families of specialized athletes.

Why This Matters

In deciding whether a youth athlete should specialize in a sport – particularly if that child is on the younger side – they need to carefully weigh and consider its benefits and harms. As I have suggested above, specialization puts youth athletes at an increased risk for suffering an overuse or more serious injury and burnout. This risk results from the sheer intensity and volume at which these athletes train, as well as the pressure that accompanies it. These are just a few ways in which specialization can harm a youth's physical and mental health.

Aside from this, specialization and related time commitments can take students away from their other obligations. One such obligation is school. If the athlete is required

to play or train too often, it could leave little time for them to spend on academics and the athlete's grades may experience a subsequent decline. Interestingly, parents are also affected by specialization since they can be forced to leave work early or take off days in order to satisfy these sports obligations, obligations that they have invested in. This is significant because in doing so, they forgo income, which is needed in many cases by middle and lower-income families. In Chapter 2, we will explore the ethical and philosophical literature to see whether and to what extent commentators have touched in these issues. It turns out that ethical issues surrounding youth sports are common, but specialization is lacking in recent discussions in sports ethics.

Chapter 2: Literature Review

Chapter Overview

In the introduction, I described the shift from the community-centered sports models to for-profit models. This, coupled with outdated research suggesting that specialization was a surefire way for a young athlete to become elite more quickly than their peers, further propelled the acceleration of youth sports specialization as a practice. Although some can surely benefit from early specialization, the majority of those who aggressively utilize the practice are more likely to be hurt by it. In Chapter 1, accordingly, I discussed several ways in which youth athletes can be hurt by specialization. This includes but is not limited to negative impacts on their physical and mental health through greater likelihood of overuse and serious injuries, and burnout, respectively. Aside from health, I also showed that specialization can also be detrimental to an athlete's academic progress and their family's financial wellbeing.

Before I can develop my central argument that current practices associated with youth sports specialization are impermissible, I must situate the topic of my argument within the broader context of the academic literature in sports ethics. The literature review of this chapter, then, will exhibit the specific contribution my thesis makes in that literature, which currently has a gap in need of filling. To this end, I will first summarize relevant literature under the scope of sports ethics (Part 1). This literature will further expound upon harms discussed in the previous chapter or similar ethical issues in youth

sports such as, for example, youth boxing. Next, I present pertinent literature regarding applied ethics (Part 2). In this subsection, readers will see the aforementioned issues presented in a different context. It is necessary to explore this analogous literature because of the dearth of extensive research in sports ethics. Moreover, I will demonstrate how the issues discussed in the previous chapter are taken quite seriously in other fields.

To accomplish this, I will pinpoint certain ethical concerns from sports and applied ethics – such as informed consent, autonomy, and fairness to name a few – which can be applied to the topic of this thesis. I will then justify why this set of principles is most suitable to be applied to this topic. Lastly, I will explain why this is needed and how it fills a gap in the literature. This will set the stage for Chapter 3, which will focus on the application of this framework to youth sports specialization.

Relevant Literature in Sports Ethics

Collegiate Football

The health of athletes has a been a prevalent consideration in ethical discussions regarding contact sports (Corlett 2014; Dixon 2001; Frias & McNamee 2017). This is especially true for both team and individual-contact sports like soccer and rugby. Not surprisingly, football also falls in this category. Sports in this category are problematic given the risk of serious brain injuries or extensive bodily harm. One such condition which has been linked to contact sports such as football is Chronic Traumatic Encephalopathy (CTE). CTE is a brain disorder in which nerve cells begin to degenerate due to repeated, significant head trauma. In a study conducted by Boston University's CTE Center, researchers found that 345 out of the 376 former NFL Players in the study had CTE (Chobanian & Avedisian School of Medicine, 2023). This matters because if

untreated, this disorder can lead to death. This, in addition to other related risks, have prompted some (Sailors 2015; Corlett 2014) to call for intercollegiate football to be banned, while Dixon (2001) argues that other contact sports should be banned, particularly those which exacerbate the aforementioned risks.

Interestingly, Angelo Corlett agrees that collegiate football should be banned, albeit for a different reason (2014). Given how much colleges, in particular athletic programs, benefit from exposing their players to these harms, he argues that these programs should provide insurance plans that cover long term medical care for chronic brain conditions and other injuries. However, many programs are in the same position as athletes in that they cannot (or will not) afford to finance these plans. This means that if a player were to sustain a brain injury that would impact them decades later, they would be forced to pay for medical care out of their own pocket. In order to make this healthcare more affordable, it may be necessary to increase healthcare costs or public taxes (Corlett 2014, 124). Drawing on the normative concept of fairness, Corlett argues that since football is not a public good, it would be unjust to force people to bear these costs (Corlett cited from Frias & McNamee 2017, 265). Thus, it would be more ethical to eliminate collegiate football altogether if the programs cannot bear the costs. Commentators above draw from ethical ideas of autonomy and fairness to defend their arguments in calling for collegiate football to be banned. We see similar ethical principles being employed in the analysis of youth boxing and combat sports.

Youth and Boxing

Due to comparable risks and harms, youth boxing may also be in need of new regulation to be ethically permissible (Dixon 2001; Pearn 1998). It is no secret that

children are vulnerable to harms such as those caused by contact sports. This is because youth athletes are likely to lack relevant information, are more easily coerced, and have a significant degree of mental incompetence. Due to the fact that the repeated head blows youth suffer in the sport could impair their ability to reflect on life plans and form values, Dixon argues that the sport could reduce their future autonomy (Dixon 2001, 335). Given these factors, he believes it is permissible to restrict autonomous actions of youth and their families in order to preserve greater future autonomy for young adults. In other words, he defends his argument for preemptive paternalism by appealing to long-term notions of autonomy (Dixon 2001, 332). Relatedly, Sailors' argument is centered on the connection between CTE and brain damage sustained during this sport. If one were to develop CTE, autonomous choice would be equally impossible for them (Sailors 2015, 271). Ultimately, they each arrive at the conclusion that blows to the head should be eliminated in football and boxing, appealing to autonomy and unnecessary harm risks for participants.

On a different note, Pearn argues that youth boxing takes advantage of socially vulnerable children – particularly those below the age of 16 (Pearn 1998, 313). In some cases, its participants are socially disadvantaged and seek to use the sport as a means of escaping poverty while facing a strong risk for suffering traumatic brain injuries (Pearn 1998, 313). Noting that our enlightened society should reject the promotion of violence as an appropriate ethos for youth – especially that which involves acute risk of injury to the brain – he argues that this risk is far too high a price for such children to pay (Pearn 1998, 312). Consequently, he believes that child boxing is exploitative. In this way, it is unethical. Once again, the commentators surveyed above, whether explicitly or

implicitly, all defend their moral arguments regarding youth boxing by using principles relating to harm reduction, autonomy, and freedom from exploitation.

Youth and Mixed Martial Arts

Yet not everybody in the literature feels that combat sports such as MMA (like boxing) should be banned, as they claim that these sports can teach valuable skills (Russell 2007, 176-177). The value gained by children who participate in these sports includes, argues Russell, but is not limited to learning responsibility, resilience, selfdefense, how to manage fear in the face of danger, and how to effectively engage in combat (2007, 180). Through what Russell refers to his "common-sense" view, he asserts that if the risk of bodily injury were completely eliminated, it would infringe on the right for the youth to confront physical risks and soundly weigh risks of their own. More clearly, this change within the sport could leave its participants ill-prepared to deal with the violence in their adult life. Seeing as MMA permits the maximal range of fighting behavior (Artis 2022, 608) – meaning the sports simulates closely to a real-world fight – pressure-tested training appears valuable (Russell 2007). Therefore, it is morally permissible for children to be exposed to the risks of MMA, so long as their training is aimed at advancing their cultivating of virtue and acquiring the aforementioned goods, and that there are strict safety rules put in place and respected by operators (Artis 2022, 609).

Despite this, Artis does concede that the sport could become safer if they could limit the dangers to which children were exposed in the sport. For instance, instead of allowing heavy blows to the head, judges could only permit light-contact head blows – a slap rather than a punch – and even require the use of protective head gear when

practicing striking (Artis 2022, 616). Furthermore, those judging these bouts could emphasize point-scoring over which fighter can inflict the heaviest damage (Artis 2022, 616-7). These changes would allow for the acquisition of the same goods – knowledge of self-defense and how to navigate risks, virtue, discipline, etc. – albeit at a lower risk (Artis 2022, 616).

In this section, I explored the ethical implications and health considerations surrounding children's participation in several contact sports. From this research, I encountered arguments defending that contact sports be banned or regulated to be safer for participants. Corlett (2014) argued that collegiate football should be banned since it would be unfair to subject others to costs as a means of funding long term medical plans for players who sustained serious head injuries. In regard to children's boxing, Pearn (1998) argued the sport exploited socially vulnerable children and that soft-paternalistic intervention is necessary to prevent involuntary harms. Despite the fact that MMA features many of the same harms associated with football and boxing, several individuals (Russell 2007; Artis 2022) argued it was valuable because of the essential skills it imparted to participants. So rather than suggest a ban, Artis (2022) recommended that the sport adopt certain restrictions and limits in order to become more morally permissible. Similarly, these authors draw on harm and risk reduction to highlight problems with Youth MMA. While they do not call for an outright ban, they do advocate for substantive changes designed to make the sport more morally permissible.

Though none of these topics relate explicitly to the ethics of youth sports specialization, it is clear that the kinds of arguments made directly bear on related considerations discussed in Chapter 1, such as physical harm, educational deficits, or

fairness to families. Due to the lack of literature on this topic, I explore in the next section analogous cases in applied ethics literature. These cases concern negative impacts for youth in clinical trials and advertising, along with normative arguments that commentators in the literature make in response to these impacts. I explore these cases under applied ethics in the next section to identify similar considerations that may bear on my analysis of specialization.

Analogous Literature in Applied Ethics

In order to survey this literature, I researched subfields in applied ethics where youth face similar concerns as I have identified with specialization, which include biomedical ethics, professional ethics, and educational ethics. Looking at this literature outside sports ethics will help us to gain a more comprehensive view of the ethical implications outside of the context of youth sports. I understand that the connections I draw may not align perfectly with the topic of the thesis. Still, understanding the normative justification of arguments for proponents in these fields will assist in my development of an ethical approach through which I will argue that youth specialization is problematic. Moreover, this understanding will enable me to create policy recommendations aimed at ensuring parents and sports providers utilize safe practices when training youths. This will help protect youth who seek to specialize in a sport.

Clinical Trials

One topic under the scope of biomedical ethics involves concern about the permissibility of children in clinical research. One commentator in particular, Vera Sharav, who works for the Alliance for Human Research Protection, argues that medical experiments and trials that children undergo expose them to ethically unacceptable,

substantial risks of harm and pain (Sharav, 2003). Moreover, many forms of youth clinical research expose them to these harms without offering participants any benefit or clear transparency as to their risks. Sharav focuses her analysis on experiments such as the lethal heartburn drug test, an invasive insulin infusion, and the experimental insertion of a pacemaker (Sharav 2003, 1). She argues that the risks associated with psychoactive drug tests far outweigh their perceived benefits. In fact, this testing can negatively impact a child's physical and neurological wellbeing – since these tests can disrupt cognitive development in youth (Sharav 2003, 1). Given these effects, she questions the permissibility of such tests (Sharav 2003, 28).

To support her claim and highlight the need for more stringent regulation in how children are used in clinical trials and medical experiments, Sharav cited several cases and illuminating statistics regarding mental health impacts. In particular, she briefly covered the increased risk of suicide in trials where children were being treated with Zoloft. In their trials, Pfizer attempted to determine whether Zoloft could be used to treat children who experienced either obsessive-compulsive disorder (OCD) or depression. In reports disclosing the findings from the Pfizer trial, Sharav found that the children were given a higher dosage than adults who were tested in the drugs adult trials. In fact, the mean maximum daily dose was 185 mg in pediatric trials (Sharav 2003, 34). For reference, the average maximum dose in the adult trials was just 148 mg (Sharav 2003, 34). Even upon reading their disclosure report regarding the trials, she could not pinpoint their motive for this (Sharav 2003, 34).

However, the more disturbing thing is that by the time the Zoloft trials were completed, a number of the children began to experience suicidal thoughts (Sharav, 2003,

34). Among these individuals was an 8-year-old boy. He was ultimately dropped from the study after he mutilated his feet with a razor blade and attempted to strangle himself with a necktie. Although he had no previous history of self-mutilation or suicide, researchers believe that the drug prompted this behavior. Unfortunately, this behavior was not a one-time occurrence as all six children from the first study group attempted suicide (Sharav 2003, 34).

Sharav argues that when drug companies and regulatory agencies fail to report these serious or adverse findings, they undermine the integrity of scientific literature (Sharav 2003, 35). More significantly, they mislead patients and their families who believe the drugs are benign when they are anything but (2003, 34), which suggests a deontological or rights-based form of reasoning: parents and children were not permitted fully autonomous choice-making given a lack of information about the possible decisions and risks involved. Their rights, it may be reasoned, were therefore compromised.

Additionally, children were exposed to experimental risks without voluntary, informed consent (Sharav 2003, 45). Seeing as the children received no clear benefit from these trials, and yet pharmaceutical industry benefitted greatly – and since their profits skyrocketed during this period – these child participants were exploited.

Sharav argues that it is necessary for the current research protection system to be restructured around a rational and ethical framework. Furthermore, she argues that federal legislation must be put in place to regulate clinical trials. In the very least, proposed legislation, like the National Human Subject Protection Act, would ensure the protection of human research subjects – particularly children and adolescent ones – and

require companies and other parties performing these trials be to fully disclose all known harms and risks (Sharav 2003, 46-7).

Relatedly, Miller and Brody argue that non-exploitative trials are those in which patients are not being exposed to excessive risks and are informed that they were volunteers for an experiment rather than patients receiving personalized medical care directed at their best interests (Miller & Brody, 2002). However, Resnik (2002) believes this argument falls short as it does not carefully consider values such as fairness or justice. He draws on important ethical ideals including the Belmont Report to demonstrate that fairness was relevant to discussions of clinical trials even prior to his publication (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). To this end, he also cites Gordon (2001) and Macklin (2001) to show that philosophers often draw on ideas of justice when discussing clinical trials. Critiquing Miller and Brody's (2002) argument, Resnik argues it is necessary that researchers do not take "unfair advantage of social economic, psychological, or cultural disadvantages of their subjects," (Resnik, 2002). In line with this thinking, it seems he would be in favor of amending the aforementioned legislation proposed (Sharav 2003, 46-7) so that medical researchers are required to uphold justice so that youth participants are not being taken advantage of. It is clear that these commentators publishing on ethical issues in youth clinical trials rely on key moral concepts such as beneficence, fairness, and respect for persons. Like youth clinical trials, I believe that the ethical concerns regarding youth sugar intake are analogous to the ones I have identified in youth specialization.

Children and Sugar Intake

This century has seen an increase in the amount of sugar consumed by children and adolescents (Chun et al., 2010). This is seen with an associated uptick in obesity, heart disease and type 2 diabetes – a disease that is the result of abnormally high glucose levels due to an unhealthy diet (Mayo Clinic 2023). Notably, studies found that child obesity, which is correlated with high sugar intake, had increased from 4 to 18 percent between 1975 and 2016 (NCD Risk Factor Collaboration, 2017).

At the same time, we have witnessed an increase in the marketing of processed and sugary foods and beverages, to youth – especially those who are Black or Hispanic (Hardee, 2022). While this in itself may not necessarily be a problem, one larger ethical concern is that they market their products particularly to children. This is advantageous to them economically because youth are more easily influenced by this marketing (Kelly et al., 2023). This is especially important as research shows that youth can have considerable power in family decision making around buying goods (Wang et al., 2007). Given that youth influence household purchases, this marketing can further propel the purchase of sugary products. So if a youth deems a brand's products to be tasty, this evaluation will continue to persist throughout their lifetime (Connell et al., 2014).

These companies recognize that youth, especially those under the age of eight, have underdeveloped cognition and impulse control (Kelly et al., 2023) Furthermore, youth are unable to critically evaluate marketing until they are 12 (Kelly et al., 2023). Yet, it is not guaranteed that youth will ever learn how to properly self-regulate their consumption of these foods – even while in adulthood (Kelly et al., 2023). Boyland

(2023, 236) argues that the nature of this marketing is exploitative since companies will advertise these products specifically to children despite the known health risks to those who regularly consume their products. While this is not the sole or most direct cause of the rise in child obesity, it has contributed to the problem. According to the senior research adviser of the University of Connecticut's Rudd Center for Food Policy & Obesity, Dr. Jennifer Harris, the obesity crisis cannot be addressed until marketing is reformed (David, 2020). In response, the World Health Organization recommended mandatory regulations for the marketing of foods that are high in fat, sugar, and salt (WHO, 2023). In this section, it is clear that some believe that it is unethical for companies to advertise unhealthy foods to youth due to their cognitive immaturity (Kelly et al., 2023) and a capacity to be more easily exploited (Boyland 2023, 236).

Although the context of my research differs from that of clinical trials and the effects of marketing sugary foods to children, they share many similarities, both in terms of relevant risks as well as methods of ethical reasoning. Just as ethicists attempt to prevent youth from being exposed to unnecessary harms, I too aim to achieve this outcome for youth who specialize in a sport. In the next chapter, I explore in greater detail ethical concepts, such as autonomy, informed consent, freedom from exploitation, and fairness, which were used to defend arguments by commentators in sports ethics, bioethics, and professional ethics above. In the end, rather than relying on a single principle or ethical framework, I will appeal to a pluralistic conception of accepted ethical principles to make my argument regarding youth sports specialization. The key principles of my pluralistic approach include principles of autonomy, non-maleficence, and justice.

Chapter 3: Application of Ethical Principles

Chapter Overview

In my introduction and first chapter, I detailed how increasing commercialization and other factors within the youth sports industry pushed youth athletes to specialize in a specific sport. I found that those who specialized often did so to become elite in their sport, because they planned on using their sport as a means of affording college (via athletic scholarship), changing their life circumstances, or as a way to make a living. Though specialization enabled some to do just that, it is not without risk. Youth who specialize face an increased chance for suffering serious and overuse injuries, even burnout. Aside from these physical risks, this practice can disrupt a youth's commitment to and performance in their academic studies. Considering these risks and the fact that it can jeopardize a family's financial status, it is clear that the majority of youth who choose to specialize are more likely to be hurt by it than helped.

In Chapter 2, I surveyed relevant literature in sports ethics. This section featured topics including intercollegiate sports (Corlett 2014; Frias & McNamee 2017), youth boxing and MMA (Artis 2022; Pearn 1998; Russell 2007). Under applied ethics, I surveyed literature on youth and clinical trials healthcare (Sharav 2003; Resnik 2002) as well as ethical problems with the advertising of sugary foods (Kelly et al., 2023; Chun et al. 2010). From both sections, I saw researchers and ethicists draw on similar ethical

principles in their arguments. Among these were principles such as autonomy, informed and voluntary consent, freedom from exploitation, fairness, and beneficence.

In Part 1, I will review three central principles of bioethics, namely autonomy, nonmaleficence, and justice. These principles are commonly applied in other fields of applied ethics and, as we will see, will be important for me to make my argument. More specifically, I begin by summarizing the moral principle in question, including consideration of its common application and its importance. Then, I discuss two aspects of the principle that are pertinent to youth sports ethics. Lastly, I demonstrate how the principle in question is being violated when understood in context of youth sports specialization. For example, after reviewing the concept of nonmaleficence, I highlight how exploitation of youth and failure to disclose health risks violate this principle in common pay-to-play practices. I conclude in Part 2 with a justification for my pluralistic approach and its relative advantages over competing accounts in sports ethics.

Part 1: Ethical Principles for Sports Ethics

Autonomy

In bioethics, autonomy refers to a person's rational capacity for self-governance or self-determination (Vaughn 2017, 80). When one is autonomous, they have the freedom to choose and act as they please. This is important because the ability to do so enables people live as their authentic self (Christman, 2020). Thus, it is generally accepted that people have a right to autonomy (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). Medical professionals are tasked with protecting a patient's autonomy due to this importance. However, in certain, explicit cases it may acceptable for professionals to violate the right. For

instance, if a mentally ill man is threating to injure himself or people in close proximity to him, it would be acceptable for medical personnel to confine him or breach client-confidentiality to deescalate the danger. The same would be true if they opted to treat the man. Although the mentally-ill man's autonomy was restricted in this scenario, physicians were justified in doing so given that the man posed a threat – to himself and to the autonomy of nearby onlookers (Vaughn 2017, 81).

Generally, limiting or restricting a patient's autonomy is justified by appealing to autonomy-restoring paternalistic values. Most simply, paternalism allows for a person's actions or decision to be overridden if it is done for that person's own good (Vaughn 2017, 81). One example is weak paternalism. This type of paternalism asserts that if a patient with diminished autonomy needs treatment, a physician can violate the autonomy they do have in order to protect them from harm, that is, to help restore them to their full capacity for autonomous decision-making. Examples of persons with diminished capacities for autonomy include but are not limited to those with severe retardation, clinical depression, addiction, and psychosis. It is necessary for physicians to fulfil this role, because non-autonomous persons may be incapable of advancing their own best interests. In this way, this type of paternalism seeks to promotes welfare among nonautonomous persons. Additionally, it can help these persons achieve full autonomy. For these reasons, it is considered morally acceptable – even among those staunchly opposed to strong paternalism (Vaughn 2017, 82). In contrast with weak paternalism, strong paternalism is appealed to in order to justify the ethical overriding of a person's selfdetermination, even if they are fully autonomous. In other words, there is a disagreement between the patient and the physician over how best to promote the patient's self-interest. Suppose there was a woman who desperately needed a blood transfusion but refused it due to her religious beliefs. In accordance with this type of paternalism (if true), the physician would be justified to perform the operation when the woman lapsed into a coma (Vaughn 2017, 82). Those supporting strong paternalism defend it by arguing that if circumstances were ideal – here if the patient were in her right mind – they would make the decision that the physician did. Yet due to the fact that strong paternalism mandates physicians in some cases go against the will of patients, strong paternalism is viewed as contentious in the literature (Vaughn 2017, 82).

Although these types of paternalism both aim to promote the welfare of the patient, they go about it in different ways. Those who ascribe to weak paternalism ideally want to promote beneficence, to benefit the interests of the patient, while either preserving or enhancing their autonomy. Those ascribing to strong paternalism are willing to promote beneficence, even at the cost of the patient's autonomy. As these ideals shape our policy responses and laws, I argue that these ideals, especially weak paternalism, which are fundamental in bioethical reasoning, should be seen as similarly fundamental for policymaking more generally. When certain activities put people in serious danger, policymakers are justified to intervene to mitigate risk by informing individuals and ensuring they have access to the relevant information. This allows for individuals to retain and exercise true autonomous choice. Policymakers can also restrict certain activities, even to limit autonomy in order to prevent serious bodily injury. This is especially true in cases regarding those who already have diminished autonomy, such as with youth. If the threat remains too great for either of these options, policymakers can

ban or restrict the activity outright – thus completely overriding individual autonomy (e.g., youth may not consume alcohol or drive a car).

I argue these same considerations are also relevant to sports ethics and my discussion of youth sports specialization. Youth, due to their cognitive immaturity and capacity to be easily influenced or coerced, could be considered as persons with diminished autonomy. This is evidenced by their legal designation as minors. Thus, it may be necessary to take extra precautions to ensure that their autonomy be protected, and so I will appeal to the weak variant of paternalism. In the next section, I will explain how the autonomy of youth athletes goes unprotected when they choose to specialize.

Protection of Future Bodily Autonomy

As noted earlier, specialized athletes train and play more frequently than their non-specialized counterparts. In addition, the intensity can be significantly higher than their counterparts. In consequence, they are already at higher risk for serious injury. However, this risk does not end there. I contend that when youth specialize in a sport, they can jeopardize their future autonomy. For instance, suppose a youth athlete suffered a severe injury to their arm, such as a UCL tear and the mechanical use of their arm was permanently impaired. Consequently, into adulthood, the injury may predictably prevent them from carrying out the most basic tasks such as carrying groceries and moving light furniture around their home. In addition, the individual may predictably suffer persistent, chronic pain in the afflicted area. Although the injury was sustained when the individual was a youth and may have healed, its impacts will likely be felt in adulthood.

However, this risk of long-term diminished autonomy into adulthood is not limited to the physical use of their body. Suppose that a specialized, youth athlete

sustained a major blow to the head while participating in a contact sport. It is common for severe head injuries, like a concussion, to be accompanied by severe migraines, memory loss and even mood changes. Although these symptoms may subside, when one sustains a traumatic brain injury, research shows that they are likely to face an increased cognitive decline later in their life (Chanti-Ketterl et al., 2023). If this youth suffered this decline in their cognitive facilities, then they too would have reduced autonomy later in their life, due to an injury sustained in their youth. In summary, these cases demonstrate how injuries can detrimentally affect one's bodily facilities in adulthood. Although risks like these seem to be more of a cause for concern of physical impact sports (as discussed in the previous chapter), they will also affect specializers of said sports more commonly than athletes that vary their training across multiple modalities throughout the year.

When youth look to specialize, they are primarily focused on the short-term gains, lacking insight into the long-term impacts on the body. This is evident given research on the training habits of youth athletes in general, which suggests that 30 percent of youth athletes overtrain in general (Matos & Winsley, 2007). Moreover, specialization entails more training comparatively, so it is reasonable to infer that a higher percentage of specialized athletes overtrain – despite a lack of research on this. In placing so much emphasis on their performance goals, they heighten the risk of major injury. This in turn lowers the chance that they will retain full autonomy of their body past their youth. Thus, I contend that specialization – as currently practiced – is problematic given that it can seriously affect one's future bodily autonomy and so weak paternalism regulations may be justified to constrain these practices, rendering them safer.

Informed Consent and Autonomy

Another important aspect of autonomy is informed consent. Vaughn (2017, 196) defines it, in its biomedical context, as the action of an autonomous informed person agreeing to submit to medical treatment or experimentation. This notion obliges physicians to disclose consequential information about medical interventions and get their permission before proceeding with any life-altering treatment. The fact that the US legally requires that physicians perform this duty signals its importance in medicine (2017, 196).

When informed consent is more broadly defined, it can refer to the belief that service providers have a duty to fully provide relevant information regarding their goods or services to consumers, especially when these involve risk of harm. For instance, restaurants serving sushi will often mention a warning noting "the consumption of raw or uncooked fish could lead to potential illness." This serves as a warning to those who have weakened immune systems just as warnings noting that a dish contains shellfish products alerts those with shellfish allergies. The intuition supporting the value of informed consent is both universal and widely applicable because people cannot make optimal decisions if they lack key information. Self-determination requires transparency. Overall, this duty is important because without supplying people the pertinent information, they can be susceptible to coercion or manipulation. Even in the absence of malicious intent, their ability to manage their own life could be impaired.

I fail to see how if this intuition were applied to youth sports specialization, the conclusion would be anything different. Those who provide youth sport services should give youth athletes the information necessary to make an informed decision on the use of their goods or services. As referenced earlier, this is even more important given that

youth are not fully autonomous. It is thus necessary that they (and their guardians) receive this information, as it enables the best decision-making given their needs and wants in life.

Youth who agree to specialize may do so without fully being aware of key information and relevant harms. This is evidenced by several risky habits used by specialized athletes. These include unsustainable workout plans, low concern for proper recovery periods or training recommendations, and even not taking a break for the appropriate amount of time throughout the year. This suggests that youth athletes may be unaware of the dangers such actions can pose to their health. If this is the case, then youth sports providers have clearly failed to properly disclose the relevant information for an informed choice to be made. I will elaborate further on how these providers have a duty to properly notify their patients or customers of the harms associated with use of their product or service. Moreover, I will explain how the failure to do so, violates the fundamental ethical principle of nonmaleficence.

Nonmaleficence

Nonmaleficence is a principle that asserts it is morally wrong to inflict harm onto others, whether intentionally or unintentionally (Vaughn 2017, 10). When applied in medicine, non-maleficence is more precisely defined as the idea that we should not cause unnecessary injury or harm to those in our care. So, if a physician were to injure a patient by purposely administering a drug that they know will likely induce a heart attack despite a better choice, she is in violation of this principle. The same holds, if a physician's negligence or inexcusable ignorance results in injury to a patient (2017, 10). The principle is realistic in that it acknowledges that there is a chance for patients to be

harmed whenever they opt to receive treatment. Sometimes treatments fail or the patient's condition could worsen due to factors outside of each party's control. Even further, when one must undergo surgery, there is a substantial chance that they could even die during or afterward, due to a blood clot. Since surgeries have predictable risks, physicians must recommend these procedures only when there is no less risky option, or only when the information as to the risks are made fully transparent to the patient. Otherwise, the physician violates a duty of nonmaleficence since they could have pursued other actions to minimize harm.

If a physicians must cause harm to the patient, they should seek to cause the least amount necessary to achieve the desired result. Furthermore, they should utilize treatments with substantial likelihood of harm only when absolutely necessary. In this instance, if a patient were to pass away after receiving such treatment, and the physician took proper precautions, they would have successfully exercised due care. Thus, his actions would be morally permissible. Seeing as the intuition supporting due care and nonmaleficence as a whole influences other major principles – autonomy, beneficence, utility, and justice – it makes sense for this to be one of the most fundamental principles in bioethics (Vaughn 2017, 10).

Just as this is bedrock of the medical practice, then, it seems reasonable for it to be fundamental in other areas as well. Rules of nonmaleficence are present — either explicitly or implicitly — in codes of professional conduct and government rules and laws designed to protect the welfare of patients (Vaughn 2017, 10). The same is true for the obligation of people to exercise due care when providing their goods or services to individuals. One common application of this subprinciple is the duty to disclose harms.

Another manifestation supports an individual's right to be free from exploitation, which is a kind of harm even if no physical damages result. In the subsequent sections, I will explain how youth sports providers often fail to disclose harms and preserve youth athletes' right to be free from exploitation. Furthermore, I will demonstrate how this is morally problematic.

Disclosure of Harms

Disclosure of harms refers to obligations of physicians to inform their patients of relevant harms. In disclosing relevant harms, physicians are able to reduce information asymmetry between themselves and the patient. With severe information asymmetry, exploitation and coercion are more likely to occur. This is why it is commonly recommended by bioethicists that physicians attempt to engage in conversation with their clients to come to shared-decision-making (Vaughn 2017). Imagine a youth athlete sustained a significant injury to their ankle and sought medical advice for how best to deal with it. The physician offers two effective treatments that will result in full recovery and retainment of range of motion in the afflicted area. Treatment A and Treatment B. Treatment A would involve an intensive physical therapy to rehabilitate the area. Treatment B would entail an invasive surgery, with a significant risk because of possible complications and the patient's weakened immune system. If the physician failed to mention the risks associated with Treatment B, then the athlete and their guardians might be tempted to proceed with this plan. Yet if all else is equal, this is not the best choice since Treatment A could achieve the same results with less risk. When equipped with the proper knowledge, patients can make the best, fully-informed decision given their interests. Thus, it is important for physicians and service providers alike to properly

disclose harms. Doing so, enhances the ability of the patient to make optimal decisions.

Moreover, doing so can reinforce patient autonomy.

Relatedly, one harm that youth athletes who are considering specialization should be aware of is the increased risk for injury. To illustrate this point, recall the link between youth pitchers and Tommy John surgery, mentioned in Chapter 1. Among youth pitchers in baseball, a sport in which pitchers often specialize in order to maintain a competitive advantage or keep up with elite competition, we saw that over half the athletes that receive Tommy John surgery were between 15 and 19 years old (Erickson, 2019). Remember, this injury repairs the Ulnar Collateral Ligament, which tears when pitchers pitch too frequently. This injury can be so serious that it can sideline athletes anywhere from 12 to 30 months (Zaremski et al., 2019). While some are able to return and even enjoy successful careers, others may suffer lingering pain from the injury. Although I provide youth baseball as a case to demonstrate this, increased injury risk is present in the other major team sports in the United States, including football, soccer, and basketball. So long as the youth is looking to specialize in a sport – which does not necessarily require it – they must be aware that the activity poses a predictable risk to their physical wellbeing, notwithstanding the mental and economic costs.

For youth athletes looking to obtain an athletic scholarship as a means of paying for college, specializing could be disadvantageous. In devoting so much time to training, it is possible that an athlete might neglect their academic success. They may be too busy to study or too tired to be attentive during classroom instruction. Research lends legitimacy to this claim, as they indicate that youth sports specialization has a negative impact on a youth's performance in school (Ashley, 2017). Frequent training sessions,

team practices, or games could also disrupt their ability to participate in extracurricular activities such as Student Council, National Honor Society, and Beta Club. In addition, it might affect their ability to accumulate community service hours. Ultimately, this would disadvantageous for those looking to earn scholarships because universities typically award them to students that have good grades, are well-rounded, and involvement in constructive extracurriculars. In this way, specialization could prove counterproductive or even detrimental in pursuing a college degree. As a result, providers that do not disclose the possibility for these risks fail their duty of nonmaleficence.

Unfortunately, there are incentives from families and service providers that discourage that proper care to be taken – whether it is the private trainer or the team coach, etc. – to inform them of relevant risks. Indeed, the fact that youth continue to commit to these rigorous workout regimens and overloaded game schedules, even against expert recommendations, is indicative of this. Disregard for expert recommendations and the severity of such harms suggests that they have a limited understanding of the physical, mental, and academic risks involved. If they were equipped with full knowledge of these harms, I believe that youth would choose to specialize in a safer ways, or forego it altogether. Whether it be by utilizing more sustainable training practices, taking a sufficient break from the sport (instead of playing or practicing year-around), splitting their focus on academic and athletic excellence, the youth athlete would be empowered with information that motivates a more cautious approach. If this were the case, more safely pursued specialization would be a great asset rather than a significant risk for youth athletes. But for this to work, youth and their families must ensure that they are not being exploited in the process.

Harms of Exploitation

Zwolinkski et al., (2022) says exploitation occurs when someone takes unfair advantage of another. When one exploits someone, they use another person's weakness for their own benefit. It is important to note that there is some debate regarding whether exploitation is always bad. Some utilitarian thinkers may reason that, if a party is exploited, yet leaves better off than before, it could be seen as morally acceptable (Zwolinkski et al., 2022). Nonetheless, if the exploitation leaves the victim worse off than before, then it is clear that they were harmed. Suppose a youth athlete was looking to ink a deal with a sports agent in preparation for becoming a professional athlete, but was incapable of understanding the contract and had no one to help him understand it. Knowing this, the sports agent drafted a confusing contract to deceive the athlete into signing it so he could get 25 percent of their earnings. Since sports agents typically take 4 to 10 percent of the athlete's contract (Gentile, 2018), it is clear that this agent preyed on the athlete's inability to read and understand contracts – all so that he could squeeze more money out of this deal. Since the athlete was cheated out of a portion of their earnings, the agent's actions were morally wrong. They violate an important principle at the intersection of autonomy and fairness.

I believe this risk of exploitation is present within the industry of commodified youth sports. Due to the fact that the industry is so massive, loosely organized, and heavily privatized, service providers and youth sports leagues are able to operate freely without ethical constraints that could minimize the exploitation of clients (Gregory, 2017). This allows them to set their own prices, select their own clientele, and even schedule games and training sessions as they see fit without disclosure of risks and

benefits. Due to this, some rightfully find the lack of regulation within the industry to be concerning (Farrey, 2020).

Without proper oversight, service providers can easily take advantage of youth athletes and their guardians. One way they do this is by overselling the efficacy of their products. In fact, private trainers and coaches of private select teams claim that they are capable of helping a youth athlete become an elite player. But in reality, while training certainly plays a role, so do luck, a player's talent, and a variety of other factors. In doing so, nonetheless, they can mislead youth and their parents into believing that this provider's services are a surefire way to help them earn an athletic scholarship or even become a professional athlete. Suppose that there was a talented 10-year-old athlete who played on a local basketball team and dreamt of playing basketball in college. Due to his talent, the family was approached by a private trainer who urged them to hire him, asserting that it was necessary for him to specialize early in order to have a competitive edge on his competition and have a better shot at becoming a collegiate basketball player with a scholarship. He then proceeded to charge the family a hefty fee for these services, one which the family reluctantly paid since they trusted the trainer and believed that it was in their child's best interest to specialize.

In this case, it is clear that the trainer exploited the family because he preyed on their lack of knowledge and ambitions to help their son earn an athletic scholarship. The trainer duped the family into believing that specialization was a prerequisite for this goal. This enabled him to benefit financially from this arrangement. Although it is possible that the youth would have benefitted, it might have been possible for them to obtain the same benefit but with less risk. Had they known that early specialization has no clearly

identified causative link in producing such outcomes, they might have decided not to hire a trainer and to let their child enjoy playing for his amateur team. In this way, exploitation perpetuated by coaches, private trainers, and other providers can result in parents erroneously believing it to be necessary for a youth to specialize in order to be successful in a sport. Moreover, such exploitation could even motivate youth and their guardians to specialize – whether by hiring a trainer or joining a travel team – even against their best interests.

Just as youth should not be exploited for financial gain, youth sports should also be accessible for all youth who want to participate. Unfortunately, increased commodification within the industry has threatened this accessibility. Moving away from local sports in favor of highly privatized clubs, money has become a principal factor in determining the degree to which one can participate in the industry. In the subsequent section, I explain how the influence of money in youth sports has led to unjust outcomes for youth athletes belonging to lower-income families. In the end, it will become clear that the persistence of this injustice within the industry is morally problematic.

Justice

In philosophical literature, discussions on justice are broad and complex. In fact, such discussion often features competing views of justice, such as corrective and distributive justice (Miller, 2023). Since I am primarily concerned with question of equity in youth sports specialization, and to avoid such debate over competing conceptions of justice, I will draw on a definition of justice that is commonly applied in the context of bioethics. In his edited collection *Bioethics*, which is commonly used to teach aspiring medical professionals, Vaughn (2017, 12) notes that justice, most basically, requires that

equals should be treated equally. If rules stipulate, for example, that every person is entitled to one juice box and one cookie, then that is everyone's due. For justice at its most basic requires that everyone gets "their due" (Vaughn 2017, 12). In administering this "justice" and ensuring that each person has their due, it is important to identify the respects in which equals should be treated equally. Some commentators believe that to achieve justice, it is necessary to evenly distribute benefits and burdens among citizens within a society (Vaughn 2017, 12). If evenly distributed, then it would be possible for citizens and groups to enjoy equal access to entitlements such as goods and services. No group would be advantaged or disadvantaged in their access to such goods due to arbitrary, non-morally relevant factors such as income, gender, race, county of residence, etc. Due to various interpretations of justice, entitlements, and debates over what constitutes equal treatment, achieving "just" outcomes, let alone a consensus on what this would look like, can be difficult (Vaughn 2017, 12).

To illustrate questions of justice in public policy, consider how public-school districts are typically funded. These schools are funded through local property taxes and state funding – in some cases – with amounts dependent on their students' performance on state issued standardized tests. Oftentimes, schools from higher-income counties perform best on these state tests because they are better equipped with resources. Thus, they are in a better position to perform well on these tests and draw in more funding from the state. However, schools in lower-income counties do not enjoy this same funding. In these counties, less money is collected from property taxes meaning the school may not have the same resources available. Consequently, schools in these situations may be unable to provide an education of the same caliber as their better-financed counterparts.

As a result, these schools are likely to underperform on state testing. Underperformance could then create a feedback loop which warrants less funding, and the cycle could repeat itself. According to a principle of justice as Vaughn illustrates, the distribution of school resources is unfair because funding is attached to state test performances. This is because other factors such as quality of education, resources available to their school, and even the income-level of the households they serve, have such strong influence on testing outcomes. In fact, these factors are so influential that they are consistently used to gauge how well a district will perform on the test. Income level is so significant that even it can be used to predict how well a student will do on tests like the ACT or SAT (Paulson, 2021). Seeing as those who perform best on these tests are those who can take it multiple times and higher-income families can afford to do so, it makes sense that they would typically perform better on it. Since lower-income families are arbitrarily disadvantaged when funding is dependent on test performance tied to a regional district, this method of funding is unjust. Undoubtedly, it would be fairer if schools received the same amount of funding from property taxes or were able to provide the same quality of education.

Equity

In considering the link between financial resources and performance on standardized testing, questions of relative advantage and justice come down to questions of equity. Putnam and Russell (2016) define equity as ensuring that people have access to opportunity, networks, resources, and supports so they may have what they need to survive or succeed. In regard to health, University of California researchers Braveman and Gruskin (2003) define equity as the absence of disparities that are associated with social advantages and disadvantages. Thus, pursuing equity can entail acknowledging the

existence of systemic inequalities and working to eliminate them to create more just conditions. Drawing on the aforementioned case, equality might entail allotting each school distract equal funding – regardless of how they perform on state tests. Equity, however, might involve distributing this funding based on proportional need to ensure that each student has a fair shot. Thus, an equitable distribution would require that lower-income districts receive more funding. This amount could help alleviate the inequities in funding, resulting from the difference in property taxes collected from each district. In other words, pursuing equity can help level the playing field to make it more just.

I argue that youth sports feature a similar inequity. Due to increased commercialization, the cost to play youth sports has risen dramatically creating a barrier to entry. Consequently, youth athletes from wealthy families are able to play on private travel teams and thus reap benefits like increased exposure to college recruiters and coaches, as well as more elite competition. Less wealthy families are unable to enjoy these privileges because their youth play on teams with less funding and networks. Oftentimes, these teams cannot afford the exuberant fees to play in showcases featuring "elite" talent or events where colleges will be scouting for talent. Furthermore, such disparity may prevent this team from being able to compete with these more commercialized teams in regular competition. This was the case for the Vazquez family, whose 14-year-old daughter, Kamiya, aspired to play collegiate basketball (Stubbs, 2022). In hopes to one day enroll their daughter on a travel squad, they have been doing all they can to stretch their income and save enough money to pay the fees. However, saving has not been easy, as registration and travel alone costs thousands. This financial strain is exacerbated as younger children continue to develop interest in and seek to play sports (Stubbs, 2022). Nonetheless, they feel it is necessary for Kamiya to play for travel team due to the talent differential between her current recreational team and local travel squads. Although this would be financially disadvantageous for this family, they believe that this will give Kamiya the best shot at accomplishing her goal. To this end, the family continues to save (Stubbs, 2020). In the end, the benefits of commercialized sports favor wealthier families, despite potential for athletic success being in no way dependent upon something as arbitrary as wealth. This condition is therefore neither fair nor equitable.

The same could be said in regard to youth sports specialization. Even if reforms could help make specialization safer, as this thesis suggests, by addressing harms from Chapter 1 (which I will touch on in the next chapter), it would not be accessible to all. It would remain unfair. Joining a travel team or hiring a private trainer is, after all, pricey. Rather than these families being capable of spending \$60,000 on their child's athletic development – like the Young Family – they may be forced to obtain the money in other ways, such as working more, getting another job, and even lowering family expenses. In this way, income acts as a barrier to entry for youth athletes looking to specialize. This matters because, if its harms can be mitigated, specialization would still be unacceptable due to being unfair.

Part 2: Methodological Considerations

Beauchamp and Childress (2013) note that autonomy, nonmaleficence, beneficence, and justice are the four foundational principles of bioethics. Similarly, the Belmont Report reports that the three major considerations for research involving human subjects are respect for persons, beneficence, and justice (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979). The

principle of respect to persons involves the aforementioned principles, namely the promotion of autonomy and the duty of nonmaleficence.

In my analysis I opted to utilize autonomy, nonmaleficence, and justice as the key principles for making my case, for three main reasons. First, while these principles have been utilized extensively in medical ethics, they also have value outside of bioethics in business ethics, sports ethics, and engineering ethics. If one draws on the idea of justice, furthermore, they will promote fairness in their policies. This demonstrates that the principles are intelligible enough to be applicable in other fields. Moreover, these specific principles were selected based on their relevance for sports ethics and youth sports in general, which as I have pointed out in the literature review, are often heavily influenced by bioethics. This is made apparent by the number of sports ethics publications which cite these ideas (Cortlett 2014; Dixon 2001; Pearn 1998).

Secondly, these principles have strong connections to other major ethical principles. For instance, one foundational principle I chose not to discuss was beneficence. In bioethics, beneficence refers to the belief that health care providers have a duty to be of benefit to a patient (McCormick, n.d.). More broadly, it is that the duty of beneficence requires that physicians and other service providers help those they serve. One reason why I did not select this principle is because beneficence can be a limited duty (McCormick, n.d.). This is because private service providers have the right to pick their clients. So, while this duty would compel them to work toward the benefits of their clientele, it would do no such thing for those outside of this group.

In contrast, nonmaleficence compels service providers to not intentionally harm or to inflict the least amount of pain necessary (in cases where they must harm) to all

those they interact with, whether privately or publicly. In other words, this duty does not just apply to clients. In fact, bioethicists argue that unlike some of the other principles, nonmaleficence is more specific. Thus, nonmaleficence can be more easily utilized in various situations such as medicine and even by those aiming to live moral lives, since it typically dictates that a person should refrain doing "X" – which would inflict harm on another person (Beauchamp & Childress 2019, 157). As a result, it is more useful to utilize nonmaleficence rather than beneficence in my analysis, though I admit that private trainers, for example, still have a duty of beneficence toward their clients.

Another prevalent bioethics principle I did not include was utility. Vaughn (2017) defines utility as the view that we should aim to produce the most net good or benefit. In application, this principle sanctions actions that result in the best outcome – maximum good and minimum harm, usually understood in terms of minimizing pain and maximizing wellbeing. In many cases, I suggest that the best outcome or utility can be achieved by protecting self-determination, taking the proper precautions to avoid maleficence, and treating others fairly. In fact, Vaughn (2017, 12) notes that it might be common to use utility in complement with autonomy, nonmaleficence, and justice. This suggests that to boost utility, it may be necessary to advance these other principles. However, given that the utilitarian emphasis on maximizing aggregate wellbeing may involve the neglect of individual rights or lead to problems of fairness (Smart & Williams, 1973), I suggest against an analysis of the ethics of youth sports specialization that relies on utility as its guiding principle.

In summary, the principles autonomy, nonmaleficence, and justice are comprehensive enough that they can encompass other important ethical considerations –

like beneficence, utility, etc., while they are broader and avoid some of their specific shortcomings. Additionally, these three principles allow us to appreciate the ethical challenges of youth sports specialization from three different but important vantage points. First, autonomy with regard to participant rights. Second, nonmaleficence with regard to practitioner duties, and finally justice with regard to their interconnection and broader embeddedness in the community and the private sphere. Finally, these principles are specific enough to apply in common situations. This is exemplified by their extensive use by medical practitioners and other professionals. It is also worth noting that these practitioners are not a homogenous group. In fact, they are likely to hold varying beliefs due to their cultural and religious backgrounds as well as personal beliefs. So, the fact that professionals utilize these principles suggests that they are the least likely to receive pushback or be viewed as controversial. In summary, the three principles I have selected for my approach, are more than adequate enough to justify the impermissibility of youth sports specialization as it is currently practiced in the southern US.

Feasibility Considerations

In my analysis, I opted to utilize an approach that drew on three well-known ethical principles. The major advantage of this approach is that it relies on these three separate but related principles, rather than a commitment to a single comprehensive ethical doctrine, such as utilitarianism or Kantian ethics. To elaborate on the virtues of this pluralistic approach, suppose that one person, an act-utilitarian, did not consider preserving autonomy to be important. There would be no value-based argument that could convince that person otherwise. If my argument were backed by one principle, then my argument would have limited appeal to practitioners and policymakers. Luckily, as

we have seen, the three principles of justice, autonomy, and nonmaleficence are widely accepted among practitioners as diverse as those in medicine, psychiatry, law, and engineering. In summary, the pluralistic design of my approach enables critics to arrive at the conclusion that the youth sports specialization as currently practiced is morally impermissible, even if they disagree that the activity does not violate one of its principles. In this way, my argument is able to appeal to more people, which is important for thinking about feasible reforms.

Conclusion

In this chapter, I analyzed autonomy, nonmaleficence, and justice in their ethical contexts and demonstrated how they were applicable to the topic of my thesis. Due to short term and long-term harms, sports specialization can diminish the future bodily autonomy of youth athletes. Additionally, if youth athletes and their guardians are not aware of such risks, then they cannot fully consent to the specialization. Due to these factors, I argue that specialization can compromise the autonomy of youth athletes. If those providing specialized services fail to fully disclose predictable risks to a youth's physical, mental, academic, and even financial wellbeing, then they fail their duty of nonmaleficence. Moreover, due to the fact that the youth sports industry and its private entities – which include an array of competitive teams and leagues, private trainers, scouts – are not heavily regulated, it is also possible for these providers to exploit youth athletes. This is especially true for youth who specialize to earn athletic scholarships as a means to improve their financial status. When service providers fail to fully disclose these harms and because there is an opportunity for these providers to exploit vulnerable families, the principle of nonmaleficence is violated, which is unacceptable. Last, I

argued that current specialization practices are unjust because youth athletes from less fortunate families face barriers to entry. These families are likely to be priced out of specific benefits of specialization, such as exposure, due the large-scale effects of privatization impacting the entire sector. Since a youth's ability to participate in sports and utilize services associated with specialization is based on their family's ability to pay, less-wealthy families are unfairly disadvantaged. This is unjust. Seeing as youth specialization does not always promote autonomy, nonmaleficence, and justice, but, quite the contrary, often violates these principles, I argue that it is morally impermissible. In the next chapter, I will propose recommendations aimed at making youth sports specialization more ethical. These recommendations are consistent with and inspired by the three principles discussed in this chapter.

Chapter 4: Policy Prescriptions and Limitations

Age Restriction on Youth Specializing in Team Sports

Recall that early specialization poses financial and academic harms for youth athletes and their families. Most notably, it can negatively impact the mental and physical health of athletes by exposing them to undue risk for severe injuries, chronic pain, burnout, etc. These risks are significant because of their potential to limit the ability of youth athletes to practice self-determination in the future, thereby diminishing their autonomy.

According to weak paternalism, it is in some cases ethically permissible to restrict activities that pose substantial harm to persons, especially those who already have limited autonomy. In other words, it is acceptable to violate the limited autonomy of persons and override their decision as a means of protecting them from unnecessary harm (Vaughn 2017, 82). Youth are in such a position, seeing as they have not fully matured to be said to have, in most cases, full mental competence in medical or legal decision-making. Invoking this same ethical ideal, albeit in a youth sports context, I recommend that an age restriction be put in place to limit early specialization in team sports. My recommendation, which is guided by the ethical principles discussed in the previous chapter, is consistent with those of experts: Both the *American Orthopedic Society for Sports Medicine* and *American Academy of Pediatrics* advise against early sports specialization or specialization which occurs before or during puberty (LaPrade et al.,

2016). In fact, the latter recommends delaying it until age 15 or 16 to ensure that youth have at least begun undergoing puberty by this point (Brenner et al., 2016). Early specialization is problematic because, when youth specialize too early, like before or during puberty, the activity can disrupt their maturation and even skeletal growth. To this end, the proposed age-restriction could prevent youth from specializing too early. In effect, it could protect their future autonomy by paternalistically constraining some of their options now. This view is justified by an appeal to principles such as autonomy, yet at the same time it is not unacceptably paternalistic, given that pre-pubescent youth have compromised autonomy by virtue of their young age.

Although this proposal is preferred by experts and justified by the principles above, implementing it may see limited success due its likely rejection from Americans. Further, some sports such as gymnastics seem to require some form of early specialization to be competitive. This proposal, even if Americans would accept it, thus requires a clear protocol for establishing a safer way for youth competing in non-team sports to be competitive. To be competitive at elite levels, gymnasts must specialize before puberty and enlist the services of private trainers and gymnastics teams. Besides these problems with feasibility and questions regarding sports like gymnastics, there is also the problem of how to enforce age regulations. Since my thesis is concerned with identifying problems with specialization, such practical considerations fall outside its scope. Thus, further research would be needed to implement this proposal. In implementing the age restriction and safety protocol requirements that I recommend, it may be necessary to develop fair governing bodies within the youth sports industry.

Use of Fair Governing Bodies Within Youth Sports

To recap, increasing costs within youth sports industry in the US has led to issues with accessibility. The Aspen Institute reports that families spend, on average, \$900 dollars for their child's participation in a sport for one season (Costs to Play Trends – Project Play, n.d.). They attribute this to the utilization of pay-to-play models and the rise in travel fees. Nonetheless, these exorbitant costs burden families and discourage some from enrollment in sports altogether. The CDC reports that while 70 percent of youth from families with incomes above \$105,000 participate in the sector, only about half of the youth from families in the middle-income range were able to participate. For those at or below the poverty line, only 31 percent of youth were able to participate (Richtel, 2023). If sports participation costs continue to rise – and they likely will unless there is a change in the status quo – the existing sports participation gap could worsen. So, while the US Department of Health and Human Services aims to have 63 percent of youth playing sports by 2030 due to their health benefits, the participation rate could actually drop below 50 percent (Youth Sports Facts, n.d.). Since justice requires that youth sports should be accessible regardless of a family's income level, as I have suggested with my appeal to fairness, and that increasing youth participation in sports could help lower national obesity rates, this growing participation gap is problematic (Youth Sports Facts, n.d.).

Thus, second, I call for the creation of fair governing bodies to regulate the youth sports industry. Despite the fact that the youth sports industry can have a profound impact on its participants – which can be good or bad – and it is worth an estimated 40 billion dollars, there is no such entity in place to do so (Youth Sports Facts, n.d.). To this end, it would make the most sense to utilize a consortium of organizations rather than one

unified body, given both the size and disjointedness of the youth sports industry in the United States. If this governing body or consortium were properly arranged, it could help alleviate certain inequities in accordance with the principle of justice discussed in Chapter 3. Fair governing bodies could promote justice by working to ensure equal opportunities in cases of financial need. For instance, if this industry were regulated by a governing body or consortium of such bodies, it could enable youth sports operators to supply grants, reduce pricing, or even provide fee waivers to lower income families. This would create fairer opportunities for youth athletes from these families to afford the sport. Thus, it would enable such athletes to fully participate. Although researchers at the RAND Corporation did not specify how best to do so, they have defended the need to reduce financial barriers, with particular focus on lower-income families (RAND, 2019). A policy that promotes equity in this way could see more future Lebron James's and others who might have had great potential but simply lacked the financial resources or the luck to participate.

To the illustrate this link between increased accessibility to youth sports and preferential sport outcomes, consider Norway and their success in the Winter Olympics. In 2022, Norway earned first place with 37 medals and broke their previous record of 14 gold medals by earning 16 gold medals (Stuhlbarg, 2022). In 2018, they finished first overall at the Winter Olympics with 39 medals, the most ever won by a country at a single Winter Olympics (Gastelum, 2022). Farrey (2019) attributes this country's extensive success at the Olympic level due to their unique approach to youth sports. By funding organized sports primarily through government grants, they have eliminated economic barriers for entry, enabling 93 percent of children to participate (Farrey, 2019).

By removing financial barriers, Norway has created wider pool of potentially gifted athletes in sport. In addition, the country's sport federations do not allow youth to participate in national championships before age 13 or regional championships before age 11. Game scores or rankings are also not allowed be used until youth have turned 11. With such changes, more emphasis is placed on promoting fun or the enjoyment of the sport rather than placing so much on competition or performance. Athletes such as Birk Ruud and Ferdinand Dahl – members of the Gold Medal Norwegian freestyle ski team – note that this "fun" they experienced when playing this sport ultimately drove their athletic development (Mann, 2022). In minimizing costs and restricting the use of rankings and tournaments on the basis of the age of its players, Norway successfully promotes joy and athletic development in their country's organized sports. It is no doubt that this is one major explanation for its athletes being the most competitive in the world, per capita (Farrey, 2019).

It is important to note the fact that the US is much larger than Norway and does not subsidize college. Nonetheless, if the implementation of fair governing bodies enabled it to keep costs relatively low for youth athletes and their families, I believe the US could enjoy more favorable sports outcomes. So, rather than the average American youth spending less than three years playing a sport and quitting by age 11, they instead could play until age 15 or 16 (Youth Sports Facts, n.d.). This could give them more time to become skilled at the sport, reveal their genetic potential, or even decide whether they wanted to try out another. An examination of this recommendation reveals the key to fix another major problem within the youth sports industry: the lack of oversight.

Increased Oversight Within the Youth Sports Industry

Due to the absence of oversight measures and leadership, youth sports operators such as private coaches or training camp organizers are able to operate with little to no accountability (Farrey, 2020). In operating freely, these service providers set their own prices, select their own clientele, and may disregard expert opinion regarding training habits and limits (Gregory, 2017). This is problematic given the potential for these operators and service providers to exploit youth athletes and their families. So rather than specialization resulting in the attainment of an elite skillset for a youth athlete, enlisting specialist services could actually make youth and their families worse off. Equally troubling is the potential for such parties to fail to disclose or even be aware of certain risks associated with youth specialization. By failing to be transparent, they could mislead families into thinking the practice is safe. The existence of these issues can be attributed to the fact that there are no protocols or mechanisms in place that require these operators or service providers to promote nonmaleficence.

To fix this, I recommend the use of credentialling and certification mechanisms to improve oversight of the industry. For other fields such as in medicine, counseling, and education, the use of licensing and certification is an effective way to minimize the harms that adults can pose to youth. For this reason, public school teachers in the US, for example, must obtain a general teacher certificate or license before they start teaching. Besides demonstrating their capacity to teach, this shows that they are safe and knowledgeable of how to safely instruct youths and create a welcoming environment (National Education Association Teacher Licensure, n.d.). Given how effective this certification is in minimizing harms in a school setting, it seems reasonable that similar

outcomes could be achieved within a sports context. In order to apply this to the youth sports industry, I recommend the establishment of a regulatory body or consortium, such as the one mentioned in the previous section, that ensures that operators are properly educated and held accountable for lack of compliance. To promote nonmaleficence, this body's role may include the mandate that trainers, coaches, leagues, and teams be registered and seek continuing education certifications. This would ensure that operators would be beholden to the rules established by the organization presiding over the sport they operated in. This would reduce the capacity to which those like private trainers could operate freely and ensure they have adequate knowledge of harms, via continuing education requirements (akin to those in other professions, such as medicine). If they lose their registration due to noncompliance, they lose the right to operate in the market or suffer other penalties, though I cannot explore this further.

This body or consortium of organizations could be tasked with ensuring that teams and youth sports operators adhere to a common set of ethical and evidence-based rules for safe practice. By analogy, consider standardized tests in the United States. Just as the ACT and SAT represent college readiness exams while the LSAT and MCAT gauge one's readiness for law and medical school respectively, this consortium could have an organization responsible for each major youth sport. It would be possible for each body to set knowledge standards for operators and safety standards for a specific sport.

A related recommendation to make youth specialization more ethical includes the implementation of mental health screenings for youth athletes, as well as for operators to be aware of signs of mental disturbance among their clients. Research shows that mental

health screenings can help identify mental health issues in people early on (Mental health screening, n.d.). If a person is experiencing such an issue, this earlier identification enables operators to make referrals and for professionals to treat it more quickly. Experts advocate for the screening for youth in particular because many are especially vulnerable to adverse mental health problems (Abrams, 2022). In 2021, the US Surgeon General declared a youth mental health crisis, because so many youths were experiencing mental health conditions – such as anxiety and depression (Abrams, 2022). Due to the demands and pressures associated with youth sports, athletes face a similar – if not higher – susceptibility to such mental health issues (Ma, 2021). To this end, these screenings could be used to identify the early onset of burnout, depression, eating disorders, body dysmorphia, and other common mental health issues that commonly ail youth athletes. Additionally, they could help ensure that youth athletes were mentally stable enough to compete or train in sports – especially after recovering from traumatic injuries.

In summary, this reform would promote nonmaleficence by requiring operators to conform to a set of safe standards and include incentives that discourage exploitative practices. If mental health screenings were used in accordance with this proposal, they could help identify youth athletes who exhibit adverse mental health conditions and enable them to be treated. In each of these ways, a consortium of governing bodies and the use of oversight measures such as screening could reduce the harms of youth specialization.

Yet, my proposal has certain limitations. One challenge would be ensuring that the certification was effective. Another potential problem could be figuring out whether these parties were actually complying with the standards. Lastly, it could be difficult figuring out the best way for operators to become recertified or what should be included for continuing education. Should it be knowledge in medicine, psychology, kinesiology, and pain management? Seeing as these details fall outside of the purview of my thesis, I cannot provide further details of my recommendation to address these concerns. At the very least, it is my hope that the present thesis motivates further research on the operationalization of these measures.

Thesis Conclusion

Over the past few decades, the landscape of youth sports has changed dramatically. Most notably, it became increasingly commercialized. In the past, youth sports programs and other service providers sought to ensure that all youth with an interest in sports had an opportunity to play. This was accomplished by removing barriers to entry. For instance, community sports were operated by local parks and recreation divisions, financed through state funds and even other public grants. Thus, they were able to provide these youth sports at a cost which was affordable for local families. Due to a range of factors – such as less state funding being allocated toward parks and recreation divisions, spending cuts to youth sports program, etc. – youth sports devolved from this model.

Amidst increasing commercialization, private companies began to operate in their place. Such examples include competitive sports teams (also known as pay-to-play teams), private trainers, and personal coaches. Entities such as scouting services and for-profit leagues capitalized on the impacts of this commercialization by creating leagues for the best teams with prospects to compete against each other. Many of these developments were aimed for those younger than 10 years old. Leveraging their network of college scouts and recruiters, these entities successfully created major showcases in youth football, basketball, and baseball. These showcases have become so prestigious that some

youth athletes view it as necessary to participate so they can gain exposure to college scouts.

In this new context, youth athletes and their families must now pay higher costs.

If they are unable to afford the exorbitant costs, they may able to find a cheaper experience with teams operated by park and recreation services. However, these teams are often unable to compete with the aforementioned competitive teams, because of their lack of resources and networks. So, there is an incentive to join a competitive team because these teams are far more likely to attract attention from scouts and college coaches. Seeing as such changes have left many unable to pay for youth sports, this commodification has created a barrier. Thus, lower-income families have effectively been priced out of youth sports.

This commodification also exacerbated the trend of specialization among youth athletes. In supplying the aforementioned opportunities and services, youth sports companies empowered youth to intently participate in a single sport for the majority of year, at the expense of other activities. Some perpetuated the idea that doing so was necessary to earn athletic scholarships or professional contracts. In truth, although specialization can aid youth athletes in mastering certain skills, researchers have not found concrete evidence that it results in an athlete becoming elite. Conversely, a plethora of research shows that specialization can negatively impact youth athletes. Due to these concerns, I argued that it was unethical.

In Chapter 1, I outlined the harms of sports specialization for youth.

Specialization negatively impacts a youth's physical and mental wellbeing by increasing their risk for suffering serious or chronic injuries, and burnout. In some cases, it could

even push youth to quit the sport. It also can affect academic progress by drawing their focus away from school and leaving less time for studying and participation in extracurricular activities. Lastly, youth specialization – which some families spend thousands on each year – can jeopardize a family's financial wellbeing. This is especially true for blue-collar families. Thus, as currently practiced, specialization could cause more harm than benefit for youth athletes and families.

In Chapter 2, I reviewed literature pertaining to sports ethics, bioethics, and applied ethics. In each, authors drew on similar ethical ideas to defend a wide range of arguments. These principles included autonomy, freedom from exploitation, fairness, informed consent, and beneficence. After seeing that these principles could applied in a sports context, I selected autonomy, nonmaleficence, and justice as being most relevant.

In Chapter 3, I analyzed these principles and utilized them to argue that youth sports specialization, as currently practiced, is morally problematic. Drawing on autonomy, it is problematic because it can infringe upon the autonomy of its youth participants. Just as specialization compounds the risk of serious injuries for youth athletes, it also can jeopardize their future bodily autonomy – both physically and mentally. If these youth are unaware of these risks, then it is not possible for youth and their families to give informed consent for this activity. Drawing on nonmaleficence, it is problematic because those providing services associated with youth sports specialization – like private coaches, trainers, competitive teams, and leagues, etc. – fail to properly disclose relevant harms and risks. Due to the lack of proper oversight and the incentives involved, it is possible for youth and their families to be exploited, particularly financially, if they specialize. Drawing on justice, youth specialization is problematic

given the barriers to entry for less-fortunate families, especially given that lower income families face significant disadvantages or can be priced out. Due to these conditions, I concluded that youth sports specialization as currently practiced was morally impermissible.

In Chapter 4, I presented several recommendations aimed at mitigating these conditions. First, I suggested the use of an age restriction to limit early specialization in team sports. By limiting early youth specialization for team sports, it could protect youth athletes, particularly pre-pubescent athletes. If more research were conducted to explore an age restriction on early specialization, it could be an effective way to reduce the risks associated with sports specialization. Second, I suggested that fair governing bodies be created to regulate the youth sports industry. In subsidizing and regulating youth sports, Norway successfully empowered all youth to play sports because they enjoy them, rather than as a means of affording college, boosting their socioeconomic status, etc. As their country produces the most competitive athletes in the world per capita, it is clear that reforms aimed at enhancing accessibility and even reducing the competitive pressures for youth athletes – particularly pre-pubescent athletes – can result in very favorable sports outcomes. So, if this body or consortium of organizations were appropriately structured, it could alleviate financial barriers that lower-income families face within the industry, thereby promoting justice. If further research were conducted to explore its feasibility and how to implement it, the prescription could prove effective in reducing the influence that money has on one's ability to participate in the youth sports industry.

Lastly, I recommended certification and licensure procedures to increase oversight within the youth sports industry. This measure would promote nonmaleficence

by restricting the degree to which operators can set their own prices, select their own clientele, and operate in ways which are not in accordance with medical expert opinion regarding training. Along with this proposal, it would be useful to utilize mental health screenings. Given that they allow for early identification of mental health problems and quicker treatment, they could be used to identify incidence of such problems like burnout in youth athletes. Future research is needed to determine how these recommendations could be implemented effectively, and the present thesis helps motivate the need for such research. In the end, by promoting autonomy, justice, and nonmaleficence, the aforementioned prescriptions could be useful in improving the moral permissibility of youth sports specialization.

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