

Will the new NIL era in college sports also bring about a new emphasis on injury prevention for college athletes?

Abstract

The introduction of Name, Image, and Likeness (NIL) policies in college sports signifies a transformative shift in the United States' collegiate athletics landscape, challenging the long-standing amateurism model upheld by the NCAA (National Collegiate Athletic Association). This article critically examines the implications of NIL policies on student-athletes' rights to monetize their personal brands, initiated by pivotal legal decisions and amplified by state-level legislative actions. Post-2021, student-athletes have begun capitalizing on endorsement opportunities, with a significant proportion engaging in NIL deals. However, this monetization introduces new pressures that may influence athletes' physical and mental health, particularly concerning injury risks. Analyzing data from the NCAA Injury Surveillance Program, the article reveals patterns of injury incidence that differ by sport and gender and discusses emerging intersections between financial pressures and injury vulnerability. Furthermore, it proposes comprehensive strategies for injury prevention, encompassing neuromuscular training, psychological support, nutritional guidance, advanced monitoring, and structured rehabilitation. This holistic approach aims to promote athlete welfare while navigating the complexities introduced by NIL opportunities.

Keywords: sports medicine, sports injuries, college athletics, college sports, student-athletes, college athletes, injury prevention, mental health

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Abbreviations: NCAA, national collegiate athletic association; NIL, name, image, and likeness, AEs athletic exposures; ACL, cruciate ligament

Introduction

This article examines the intricate relationship between financial incentives and athlete health within the realm of college sports in the United States, particularly in the context of NCAA (National Collegiate Athletic Association) regulations and the recent introduction of Name, Image, and Likeness (NIL) rights. Prior research indicates that financial motivations increase performance pressures on athletes, leading to increased injury risks as they often prioritize competition over their health. Specifically, college football players frequently underreport injuries, notably concussions, due to fears of losing scholarships or team status. This underreporting exacerbates long-term health consequences, as untreated injuries contribute to chronic conditions.

The analysis further highlights the socioeconomic pressures faced by athletes, which compel them to compete despite injuries, thereby perpetuating a cycle of exploitation and compromised health. With the advent of NIL rights, the NCAA's restrictive policies shifted, reflecting a change in societal views toward athlete compensation. Concurrently, injury rates have continued to rise, necessitating targeted interventions to enhance athlete well-being. This study underscores the urgent need for adaptive training programs and comprehensive health strategies to mitigate injury risks and support the overall welfare of collegiate athletes in this evolving landscape. To that end, this study concludes by presenting five approaches that, both in isolation and in coordination, can help mitigate injury rates among NCAA athletes while maximizing their performance and health in the context of NIL. It also spotlights how future research will be essential for developing effective injury prevention practices that balance athlete health and

financial opportunities, which will become all the more important to athletes and institutions as the era of NIL progresses in college sports.

Material and methods

This section of the article examines the intricate relationship between financial incentives and health outcomes for college athletes, particularly in the context of rising pressures and the introduction of Name, Image, and Likeness rights. Prior research highlights how financial motivations often compel athletes to prioritize performance over their health, increasing injury risks, especially among NCAA football players who feel under-compensated relative to their contributions. It also shows that financial dependencies related to scholarships lead athletes, particularly those facing food insecurity, to underreport injuries to safeguard their financial support. As NIL policies emerge, empowering athletes to monetize their personal brands, the pressure to perform may paradoxically escalate, potentially exacerbating injury incidence. Prior research also indicates significant injury rates across various NCAA sports, with variance observed between genders and sports types. This emphasizes the necessity for institutions to prioritize the health and welfare of athletes amidst these evolving dynamics.

Prior research on the link between financial incentives and college athlete health

Research into the link between financial incentives and injuries among college athletes reveals a complex interplay of factors that affect both their physical well-being and financial decisions. A primary argument is that financial motivations can lead to heightened performance pressures, resulting in increased injury risks. Many college athletes, driven by the potential for athletic scholarships or future professional contracts, may undervalue their health in favor of competition. This phenomenon is particularly acute among NCAA football players, who are known to generate significant revenue

for their institutions yet often report lower compensation than their economic contributions warrant, creating a sense of exploitation, at least until the advent of NIL.^{1,2}

A relevant factor is the empirical evidence suggesting that injuries, particularly concussions, are underreported among college athletes due to fear of losing scholarships or status within their teams. Prior research has found that football players' willingness to report concussions or other injuries diminishes with increased injury experience, potentially leading to worse health outcomes.³ Furthermore, financial dependencies linked to scholarships may incentivize athletes to play through injuries, exacerbating long-term health issues and reinforcing the exploitative structure of college athletics.⁴ This dynamic not only compromises their immediate health but also threatens their future livelihoods, as untreated injuries can lead to chronic conditions that affect life post-athletics.⁵

In terms of socioeconomic impact, college athletes also face significant financial strains, which compounds the pressure to compete even when injured. Many rely on financial aid and scholarships that, while beneficial, may not cover all living expenses, leading to scenarios where they are compelled to prioritize immediate financial concerns over adequate recovery from injuries.^{6,5} Data indicates that college athletes experiencing food insecurity are more likely to push through injuries without reporting them, fearing that any absence from practice or competition might jeopardize their financial support systems.^{7,8} This creates a detrimental cycle where the need for financial security exacerbates physical risks for collegiate athletes.

In brief, the connection between financial incentives and injury in college athletes is characterized by a culture that prioritizes competitive success over health. Financial pressures compel athletes to underreport injuries and participate despite pain, which increases the likelihood of both acute and chronic injuries.⁹ This dynamic creates a significant burden not just on the athletes' physical health but also on their financial and psychological well-being.^{10,11}

NIL: changing the game in college sports

The introduction of NIL marks a significant evolution in the collegiate sports landscape in the United States, reflecting broader societal shifts regarding student-athlete compensation and rights. The NCAA, founded in 1906, historically emphasized amateurism, prohibiting student-athletes from profiting from their athletic exploits, which remained a hallmark of its regulations for decades.

Before 2021, NCAA regulations strictly prohibited student-athletes from profiting off their NIL, a framework rooted in the concept of amateurism that has governed college sports for decades. These longstanding policies were established to maintain a clear distinction between collegiate athletes and professional sports, asserting that student-athletes should primarily focus on education rather than financial gain through their athletic abilities.¹²

The college sports landscape began to change significantly around 2019, driven by a combination of legal challenges and advocacy from athletes and lawmakers. Notably, the court case *NCAA v. Alston*¹³ challenged the NCAA's restrictive policies on athlete compensation and ultimately led to the U.S. Supreme Court ruling against the NCAA's position early in 2021. The court emphasized the need for the NCAA to adapt its policies in light of changing economic realities and athletes' rights.¹⁴ Following this decision, the NCAA found itself under immense pressure to revise its stance on NIL rights, paving the way for a new era in college athletics.

On July 1, 2021, the NCAA adopted interim rules that allowed student-athletes the opportunity to monetize their NIL rights, with varying regulations depending on state laws and institutional policies.¹⁵ The new NIL guidelines allowed – for the first time – athletes to benefit from their personal characteristics – their branding elements, namely their names, images, and likenesses, without forfeiting their collegiate eligibility. This landmark decision marked a transformative moment in college sports, enabling athletes to enter into sponsorship agreements, engage in endorsements, and generate income through personal branding. Reports suggested that by late 2022, nearly 17% of NCAA Division I (the highest level of American collegiate sports) student-athletes had established NIL deals, illustrating the rapid uptake of these new opportunities.¹⁶

State governments also played a crucial role in this transition. Legislative actions such as California's Fair Pay to Play Act, enacted in 2019, served as a catalyst for other states to follow suit, prompting a wave of similar laws across the nation.¹⁷ Presently, at least 41 states have enacted NIL-related legislation, underscoring a significant shift towards athlete empowerment and recognizing their contributions to collegiate sports.¹⁸ This proliferation of state laws has created a complex regulatory environment, often leading to discrepancies in how NIL rights are implemented at different institutions.¹⁹

The implications of NIL policies extend beyond personal financial gain for athletes. Supporters argue that NIL rights enhance the collegiate experience and provide athletes with agency over their personal brands.¹² Furthermore, they contribute to a more equitable landscape, addressing longstanding issues of gender disparities by potentially offering female athletes greater visibility and opportunities compared to traditional revenue-generating male sports.²⁰ However, critics raise concerns regarding the potential for exploitation and the challenge of maintaining a level playing field among varying institutional resources.²¹

Ultimately, the evolution of NIL rights represents a culmination of legal, cultural, and economic factors that have shifted the dynamics of college athletics. As institutions, athletes, and policymakers navigate this change, ongoing discussions about the balance between athlete health and welfare, institutional integrity, and financial equity will be crucial in shaping the future landscape of collegiate-level sports in the United States.

Collegiate sports injuries

The landscape of injuries among college athletes is complex and multifaceted, particularly in the wake of changes including the recent adoption of Name, Image, and Likeness (NIL) policies. As these athletes navigate their physical demands while also contending with new opportunities, understanding injury rates and epidemiology is critical. The NCAA Injury Surveillance Program has been instrumental in providing data that elucidate the risk factors and frequencies of various injuries across sports.

In examining the general injury rates across NCAA Division I athletes, one key statistic emerges from data spanning from 2009 to 2014, where the NCAA reported approximately 1,053,700 injuries occurring during an estimated 176.7 million athletic exposures (AEs). This results in an injury incidence rate of approximately 5.96 per 1000 AEs across the 24 NCAA championship sports.²² This rate indicates a heightened risk faced by athletes in competitive scenarios, as noted in several studies documenting that injuries are significantly more likely to happen during competitions as opposed to practice sessions.^{23,24}

Specifically, the frequency of injuries can vary dramatically based on the type of sport. For instance, studies focusing on football indicate a higher incidence of hand and wrist injuries during competitive matches compared to practices, with estimates of 3.6 injuries per 1000 AEs in competition versus 0.51 in practice.²³ Other sports show similar patterns. For instance, research on collegiate soccer players indicates that injury rates can reach considerable levels, with data suggesting that NCAA soccer players were injured at a rate of around 7.5 per 1000 AEs.²⁵

Interestingly, while male athletes generally experience higher injury rates overall, females exhibit different patterns. In sports such as basketball and volleyball, females may report injuries with a greater recurrence rate compared to their male counterparts, indicating possible gender-specific vulnerabilities.^{26,27} The incidence of injuries varies not just between genders but also by the nature of the injuries experienced: males tend to incur more non-contact injuries, while females more frequently sustain contact-related injuries.²⁸

Furthermore, the introduction of NIL regulations adds a new lens through which to examine athlete welfare. Since the NCAA allowed athletes to profit from their names, images, and likenesses, the demands placed on these individuals have evolved. While NIL can afford athletes financial opportunities, it also introduces new pressures that may exacerbate their physical toll, potentially increasing susceptibility to injury.²⁹ Therefore, as institutions adapt to these changes, prioritizing injury prevention and recovery protocols will be essential.

A significant point of concern regarding injuries is their long-term implications. Athletes recovering from injuries, particularly serious ones like anterior cruciate ligament (ACL) tears, have variable rates of returning to their pre-injury form. Research shows that many athletes who undergo ACL reconstruction struggle to fully regain their previous exertion levels, illustrating the psychological and physiological challenges associated with recovery.³⁰ Trends suggest that cohesively integrating physical rehabilitation with mental health support systems could optimize recovery strategies, especially as athletes confront the dual pressures of competition and publicity.³¹

Additionally, the variability in training and competition environments—such as differences between natural grass and artificial turf—has also been reported to impact injury rates, particularly for knee injuries.^{32,33} These findings suggest that environmental factors may play a significant role in determining the likelihood and type of injuries sustained by athletes during competition. This is particularly relevant for athletic programs aiming to mitigate risks associated with their sports environments.

The onset of the COVID-19 pandemic has further complicated the assessment of injury patterns following lockdown periods. A study highlighted significant shifts in injury prevalence and types once students returned to competition, emphasizing the need for tailored risk assessments as sports resumed at full capacity following interruptions.²² Such disruptions not only affect physical readiness but also mental well-being, indicating the necessity for comprehensive athlete support as they adapt to these changes.

In brief, the intersection of NIL developments, evolving injury rates, and the increasing complexity of athlete management highlights the urgent need for continued surveillance and research. Monitoring injury trends and adapting strategies accordingly can ultimately improve outcomes for college athletes. Institutions must not only engage with the data but also ensure that their training and recovery protocols evolve in tandem with the challenges faced by student-athletes in the new era being brought about with NIL.

Conclusion

The intersection of NIL policies and injury rates in college athletics highlights a critical paradigm shift in college sports in the United States. Integrating robust athlete health strategies with financial opportunities marks a pivotal moment for comprehensive care, educational initiatives, and adaptive training programs that can support athlete longevity and performance excellence. More research is needed to standardize injury prevention practices aligned with these changing paradigms, ensuring they not only address athlete welfare concerns but also adapt to the evolving landscape of collegiate athletics shaped by commercial opportunities and professional aspirations.

In the NIL era, NCAA athletes face unique challenges and opportunities that could influence their susceptibility to injuries. The intersectionality of athlete welfare and performance, exacerbated by the monetization of personal brands, necessitates the implementation of comprehensive injury prevention strategies. As such, this study concludes by presenting five approaches that, both in isolation and in coordination, can help mitigate injury rates among NCAA athletes while maximizing their performance and health in the context of NIL.

Implementation of neuromuscular training programs

Neuromuscular training (NMT) programs have proven to be effective in reducing injury rates among various athlete populations. The FIFA 11+ program, for instance, combines strength, balance, and running exercises designed to improve dynamic stability and prevent injuries, particularly targeting lower-extremity injuries prevalent in sports such as soccer.³⁴ Studies demonstrate that structured training regimens can result in significant reductions in not only ankle injuries but also knee injuries, including ACL tears.³⁵

Additionally, sport-specific NMT programs tailored to the unique demands of NCAA sports can enhance athletic performance while simultaneously minimizing injury risks. By incorporating dual cognitive tasks into these training sessions, athletes can improve their landing mechanics and decision-making under pressure, thereby addressing both physical and mental aspects of injury prevention.³⁶

Psychological interventions and athlete education

Psychological factors significantly affect both injury incidence and recovery. Educating athletes about the importance of mental health and stress management in relation to performance and injury risk is crucial.³⁷ Studies suggest that motivation and mindfulness can influence adherence to injury prevention strategies.³⁸ Consequently, creating supportive environments that encourage open conversations about mental health and providing access to mental performance coaches could foster resilience and reduce injuries.³⁹

Furthermore, instilling a culture of safety and injury awareness within teams through workshops and seminars can enhance athletes' compliance with recommended prevention protocols.⁴⁰ This holistic approach recognizes that athletes' understanding of their physiological limits is vital for long-term health and performance improvement.

Nutritional interventions

As was discussed earlier, collegiate athletes often encounter food insecurity issues. And yet, it has been well-demonstrated that nutrition plays a pivotal role in injury prevention and recovery. Prior research has shown that inadequate energy availability can lead to an increased risk of injuries, particularly stress fractures and tendon injuries.⁴¹ Thus, implementing nutritional programs that focus on optimal energy intake and hydration can help reduce risk factors associated with injuries. Research indicates that athletes involved in high-impact

sports can benefit from tailored nutritional strategies that are aimed at supporting performance enhancement and injury risk reduction.⁴² Additionally, access to sports nutritionists who can guide athletes in adopting a diet that supports their unique energy needs and enhances recovery can potentially minimize injuries.⁴¹

Advanced monitoring and data analytics

The use of motion sensor technology and data analytics has gained traction in injury prevention strategies. By employing wearable devices that track load, biomechanics, and movement patterns, sports professionals can monitor athletes' physiological responses during training and competition.⁴³ This real-time data can inform training modifications to manage fatigue and reduce overuse injuries effectively.

Additionally, tracking injury patterns and recovery trajectories across various teams and seasons can help identify trends that necessitate targeted interventions. For example, specific sports may exhibit higher rates of particular injuries, guiding the implementation of targeted prevention programs.⁴⁴

Structured recovery and rehabilitation programs

Recovery protocols must be adequately structured to ensure that athletes re-engage in competition under optimal conditions post-injury. Establishing multidisciplinary rehabilitation teams that include physical therapists, strength and conditioning coaches, and nutritionists can enhance recovery outcomes and minimize the likelihood of re-injury.⁴⁵ This integrated approach emphasizes the importance of comprehensive rehabilitation plans that prioritize strength, flexibility, and functional movement.

Summary

Adopting a proactive attitude towards injury prevention—integrating all aspects of health, nutrition, and psychological well-being—will not only support the welfare of athletes but also align with the financial interests tied to their NIL opportunities. As they capitalize on their names, images, and likenesses, ensuring a foundation of robust health and minimized injury risk will enable American college athletes to thrive both on and off the field. In doing so, both the institutions – and more importantly, the student-athletes – will benefit from better health outcomes in collegiate-level sports.

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Conflicts of interest

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