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Collegiate Sports: Professionals All but in Name Raise Unique Bioethics Concerns in the Collection of Biometric Data

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Karkazis and Fishman (2017) present an interesting analysis of the bioethical dilemmas facing professional sports organizations seeking to incorporate biometric data in the analysis and optimization of their players and teams. The use of biometric data in sports can be useful; genetic information in particular may provide relevant and actionable information with regard to predispositions to injury (Greenbaum 2013). The authors failed, however, to present appropriate guidance for a large and special subset of athletes: the nearly half a million collegiate athletes (Potuto and Mitten 2016). The ethical and legal issues introduced by the use of genomic analyses in college sports are non-trivial and substantially different from the concerns raised by their use in professional sports. They should be assessed independently.

Perhaps most problematic is the murky and long-standing (Epstein and Anderson 2016) issue regarding the employee status of athletes who are academic scholarship recipients. As described herein, various recent and ongoing legal disputes have raised significant questions as to the exact nature of the student/athlete/university relationship, and as such, this case law has created substantial uncertainty as to whether athletes can be statutorily protected by genetic discrimination laws designed specifically designed to protect employees. For example, Title II of the Genetic Information Non-discrimination Act (GINA)

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(Genetic Information Nondiscrimination Act 2008) was enacted with the goal of avoiding genetic discrimination in the workplace. GINA forbids employers from requesting genetic information from their employees, or using genetic information in employment decisions such as hiring, firing, or job assignments. However, GINA is only relevant to cases in which a legally recognized labor relationship exists. Even many of the state genetic discrimination statutes are typically limited to employee/employer relationships (National Conference of State Legislatures 2008).

The culture surrounding college sports in the United States is unique, with many Americans following them diligently and fervently, as much as, if not more so than, professional sports. Nevertheless, the courts steadfastly retain the legal fiction that the thousands of college athletes across the United States who receive a grant-in-aid athletic scholarship covering tuition, room and board, books, and additional fees are not employees. Ostensibly and emphatically amateurs according to their largest governing body, the National Collegiate Athletic Association (NCAA), they are really nonprofessionals in name only. This legal fiction is exacerbated by the hundreds of millions of dollars of revenue resulting from collegiate athletics (Berkowitz 2015).

A recent ruling by the National Labor Relations Board (NLRB), while finding that graduate students could be considered employees with all the attendant benefits, nevertheless, like previous cases (Northwestern University 2015), refused to even consider the employee nature of student athletes (The Trustees of Columbia University 2016). In addition to the NLRB ruling, the U.S. Supreme Court recently declined to hear an appeal in *O'Bannon v. NCAA*, leaving in place the earlier Ninth Circuit ruling that found that while some amateurism rules of the NCAA are in violation of antitrust laws, those violations could be easily remedied without threatening the amateurism status of the student athletes (*O'Bannon v. National Collegiate Athletic Ass'n* 2016). Even with this distinct lack of relevant precedent, and with at least one other similar case still in front of the district courts, NCAA amateurism rules remain tenuously in place (*In Re National Collegiate Athletic Association Athletic Grant-In-Aid Cap Antitrust Litigation* 2016). The upshot: Student athletes receiving athletic scholarships can likely be required to participate in genetic testing without the protections provided by the relevant employment laws (Sela in press) and without the ability to collectively bargain away such rights in exchange for others as their professional peers may have done (*14 Penn Plaza LLC v. Pyett* 2009).

Collegiate athletes are also often significantly different from professionals with regard to another legal status: Depending on the jurisdiction, the age of majority can range from 18 to 21 years. With many student athletes falling within this range, they may not appreciate the long-term implications of genetic testing (Lawrence and Shah 2014), nor may they even be legally positioned to provide the necessary consent to undergo genetic testing. In some instances, whether they are genetically tested or not may even be subject to the overriding and perhaps different interests of their legal guardians.

Moreover, even those athletes old enough for legal consent may not be in a position to disregard the wishes of influential coaching staff and/or their peers vis-à-vis genetic testing, especially with their athletic future substantially ahead of them (Taylor 2011). Further, it is possible that the nearly parental relationship between the coaching staff and the athletes may allow coaches, like parents, to override the autonomy of the student athlete under some circumstances. For example, medical societies such as the American Society of Human Genetics and the American College of Medical Genetics and Genomics have developed policy statements with regard to the genetic testing of minors and adolescents (Botkin et al. 2015). While these policies attempt to protect and preserve the autonomy of the tested individuals, they nevertheless allow for the considerations of the family unit, as well as the importance of overriding parental authority (Wagner 2013). In some situations, it may be possible to draw relevant parallels between parents and families with coaches and teammates.

Further, the coach–athlete relationship also creates established legal duties for coaches toward the athlete, including the provision of proper medical care, a safe environment, and proper training, as well as the prevention of athletic participation in the case of high risks to the athletes, the prevention of foreseeable risks, (Mirsafian 2016), and the prevention of postinjury aggravation (*Orr v. Brigham Young University* 1994). It is likely that these duties could require coaches to employ all means necessary to protect their charges, including the use of genetic analyses, particularly if the tests become relevant for the students' health or have clear clinical utility in their ability to predict and prevent the exacerbation of injuries. Further confounding this complicated relationship: Coaches, team doctors, and trainers may have overriding duties to the team as a whole, questioning their ability to keep genetic information confidential or to consistently act in the best interests of each individual athlete.

Finally, the relative lack of funds to obtain the customized tools available to professional sports teams may lead collegiate teams to use off-the-shelf technology, which not only may be less precise, but may raise complicated issues of incidental findings, owing to their ability to find unrelated genetic markers and predictors.

Effectively, if biometric data collection is used in college sports, student athletes receiving grant-in-aid would have little choice in whether or not they participate, nor would they have the ability to dictate who exactly would be able to see the data, which may end up including much more than sports related information. Not only could this affect them throughout their collegiate athletic career, it could also follow them in the future, whether in professional sports or elsewhere. Furthermore, even if they had a real choice to participate, many student athletes will likely be unable to make well-informed decisions regarding genetic testing.

In the abstract, it is easy to understand the appeal of biometric data collection, but the risk of overstepping legal or ethical boundaries looms large, particularly for college-age athletes. ■

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Biometric Tracking From Professional Athletes to Consumers

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Due to their obligation to disclose personal health information to their employer, including data from biometric tracking devices, professional athletes represent a special case. However, these athletes essentially serve as a test market for biometric tracking devices, which will ultimately make their way into the consumer health and wellness market. Therefore, the privacy concerns and other ethical issues brought forward by the increasing use of these devices and practices should be considered in terms of their impact not only on professionals but also on consumers. In this commentary, we examine these concerns with a focus on the privacy issues inherent in biometric tracking or surveillance.

A growing market of consumers have become citizen scientists, emboldened by self-tracking devices like Fitbit wearable bands, smartphone wellness applications, and smart watches. Many are enticed by the promise of a better understanding of one's self through the collection of the user's

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