

An Analysis of Morality and Ethics in the Evolution of Sports Medicine

A Research Paper submitted to the Department of Engineering and Society

Presented to the Faculty of the School of Engineering and Applied Science
University of Virginia • Charlottesville, Virginia

In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science, School of Engineering

Nathanael Chase Zegarski

Spring 2021

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Advisor

Sean M. Ferguson, Department of Engineering and Society

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In 2019, it was estimated that over 100 different global sports franchises were valued at more than one billion dollars (*Major Sports Leagues All Make...*, 2019). The signing of elite athletes to these teams provides the ability to grow and develop their fanbase, as the world's best players help these franchises to win the biggest trophies. Therefore, these profit-driven sports franchises do everything in their power to keep these superstars on the field and maximize their revenue. Thus, it is vital that athletes remain healthy; this alone demonstrates the need for an advanced sports medicine team. Karkazis and Fishman (2017) estimate that some teams in the NBA have lost nearly 50 million dollars per season as a result of player injury; these estimates are derived from a complex formula that accounts for number of games lost due to injury, player salary, and playoff revenue. Since generating revenue is the key goal for successful franchises, preventing revenue loss due to injuries is perceived to be a major focus. Therefore, it's necessary for sports physicians to have the proper training and technology to prevent or minimize injuries and make conscientious decisions regarding player health.

The Rise of Sports Medicine

Over the course of the last decade, the field of sports medicine has increased significantly. It is reported that the members of the American Medical Society for Sports Medicine (AMSSM) have tripled in size. Asif (2018) states that "the growth in our specialty... which has been targeted to be the premier educational venue for the sports medicine physician." The desire to enhance medical knowledge as well as an increase the number of sports medicine physicians demonstrates the advancement of the field of sports medicine. This evolution has provided a better understanding in diagnosing and treating athletes' injuries, as well as injury prevention, thus allowing for more efficient treatments and faster recoveries.

Advancement of Sports Medicine

Treatment Options

Over the last decade, the medical field has made enormous strides in scientific knowledge and medical treatment options. This advancement in knowledge has allowed doctors and physicians to diagnose and treat those they are responsible for in a more efficient manner. Due to the overall progression of the medical field, sports medicine practitioners have developed more effective protocols to treat a variety of sports injuries. New technologies and surgical options have directly contributed to the rise in sports medicine since physicians now have a vast field of options when it comes to therapies. One such advancement is the current surgical procedure to treating hip, knee, and shoulder injuries. Byrd (2020) states that, “techniques, technology, and understanding of hip disorders have evolved simultaneously, resulting in a quickly changing landscape in the role of arthroscopy.” This change in surgery style has resulted in a less invasive approach to treating hip injuries, evolving from an open body approach, to merely inserting smaller tools into the injured area for treatment. Advancements such as these have progressed the sports medicine field, as athletes are now treated in a more effective, non-invasive manner.

Aside from an increase in surgical options, the technology which team physicians use around their athletes has also improved significantly. Contemporary technologies in the last half decade have provided newer and more accurate information in regards to the health of the athletes. Wearable technology such as movement sensors and physiologic sensors have provided sports physicians with information regarding player movement and heart rate (Li et al., 2016). The purpose of these technological advances in wearable sensors is to “maximize performance and minimize injury,” thus allowing for a better training and treatment programs (Li et al., 2016). The use and understanding of the data involved has also improved both the team’s overall

performance as well as the knowledge of those in sports medicine to preserve the health and fitness of the athletes. This technology, which monitors biometric movements, has become so prevalent in sports medicine that “all major professional sports leagues in the United States are using these technologies,” (Karkazis & Fishman, 2017). A reliance on technology to monitor and assess player health demonstrates an advancement in sports medicine; work and pressure load on players are noticed sooner, and thus physicians can implement swift intervention, rest management, and preventive care much sooner. It is estimated that the sales of these wearable technologies could gross upwards of two and half billion dollars over the next decade, demonstrating a need for an influx of money to continue providing teams with the accurate and live information (Düking et al., 2018).

Advancements in sports medicine technology has also provided physicians with improved tools to diagnosing and tracking injuries. Traditionally, the use of ultrasound imaging in sports medicine was purely for musculoskeletal injuries. More recently however, the ultrasound’s capabilities have expanded to other portions of the body. Finnoff (2016) has stated that the use of ultrasound in sports medicine can identify areas affected from traumas, measure ventricular thickness, and even guide physicians during surgery. Due to these advancements in usage, the AMSSM has “proposed changing the name of ultrasound use within sports medicine from “musculoskeletal ultrasound” to “sports ultrasound,”” (Finnoff, 2016). The adaptation of the ultrasound’s broad uses in sports medicine further demonstrates that the diagnostic field is growing, allowing doctors to better identify and treat injured athletes. This has allowed sports franchises to providing better medical treatment options for their players, ensuring that they are able to once again compete.

Physical therapy has been a practice that allows individuals to maintain or recover their health and overall fitness through exercises targeting specific muscles and ligaments of the body. Sports medicine practitioners use physical therapy on athletes to prevent injuries from occurring and to speed the process of recovery post-trauma. Training and strengthening vulnerable injury sites provide athletes with the ability to maintain fitness and return to play in a timely manner. One way in which physicians are able to treat these athletes is through the administration of heat using radiofrequency. Tecartherapy devices provide heat to targeted areas of the body for muscle improvement. The use of heat therapy has been found to “improve blood flow and can relieve muscle spasms and pain, and improve recovery from injury,” (Jesús & Ester, 2021). This therapy technique demonstrates how sports medicine physicians are able to treat and train athletes to promote health and reduce injury time.

As a result of the amount of money that exists within sports organizations and the sports industry as a whole, there exists not only the need but also the desire to keep athletes healthy. Due to the advancements of technology and the advantages it provides to teams, further research and development of these tools will continue, thereby warranting a continued influx of money. In order to ensure the health and fitness of the athletes within each respected organization, sports medicine physicians and doctors are needed. The increase of the practice of this field as well as the technology and knowledge has allowed these practitioners to develop better ways in diagnosing, treating, and preventing injuries. While we have advanced technologies, the use of technologies is not always as obvious as one would think.

Practice of Sports Medicine Internally

Ethics and Morality in Sports Medicine

With the introduction of wearable technology in sports medicine, live biometrics of the athletes are recorded and tracked by both the team physician and coaches (Li et al., 2016). This allows these two groups to monitor the health and the positioning of the players as information on fatigue, movement and load management is being reported. As claimed by Dürking et al. (2018), “these performance metrics enable team coaches to track and plan the match play strategy.” The usage of this technology has provided advantages to coaches and physicians as they can make informative decisions with respect to games and players health. However, with this information, there exists a moral and ethical dilemma, as coaches and physicians have the ability to ignore data in order to accomplish their goal of winning and maintaining employment.

Testoni (2013) introduces the concept of ethics in sports medicines with respect to the conflict of interests between groups. Within sports organizations, there exists a struggle between the decision’s players, coaches, owners, and team physicians make with respect to the team. Team physicians have an obligation to serving the athletes as well as remaining loyal to their employer. The obligations of the team physicians provide an ethical issue within the field as they must decide to better serve the player’s individual needs or the team (Testoni et al., 2013). The discussion of who should decide a player’s availability to play becomes increasingly difficult to make when considering the athlete’s health as well as the organization’s revenue and fanbase. Calandrillo (2005) further expands on this ethical conflict by discussing the relationship between coaches, players and medical physicians; he exemplifies this by using a former team physician’s story discussing “who should remain within the team and who is expendable.” This comes to question the ethics involved within sports medicine and a player’s value to an organization. Ultimately, it’s the decisions made by these parties that provide a struggle in the politics that either best serve the team or the players. Tom Coughlin, former National Football League coach,

is reported saying that he would willingly “exert as much pressure on the player and the doctors to get the player [back] on the field,” (Calandrillo, 2005). Testoni and Calandrillo both present conflicts within the sports medicine field, using the claims of power and competing priorities within organizations to demonstrate these ethical issues.

Waddington (1996) introduces the concept of competing interests within sports medicine and the moral difficulties associated within the field. The introduction of sports medicine and its association to a player’s performance is examined as physicians previously prescribed performance enhancing drugs and testosterone to their subjects to improve athletic ability. Despite being deemed illegal for use by professional athletes, team physicians have prescribed/administered these steroids to enhance player performances. This comes to question the morals associated within the sports industry, as those responsible have demonstrated acting in their own self-interest to “improve” the health of those that which they are responsible.

There also exists the conflict of competing interests where athletes wanting to perform at high levels clash with team physicians who are trying to help their health. Ultimately the moral and ethical obligations of those involved with the decision-making process are put to the challenge. Polsky (1997) further elaborates on the role of the team physician and these obligations that they are tasked with; he claims that “team physicians... indirectly can cause a team to lose by properly asserting that a star player physically is unable to perform,”. As the team physician is responsible for the team’s performance, they endure an additional burden of responsibility. The physicians face unsolicited pressure from various actors such, as the player, the coach, and other organizational personal, whose main goal is to win the game. This results in a greater power struggle within this network as the medical ethics of the physician are competing against the physician’s employment.

Responsibility and Conflicting Power

Within sports organizations, there exists a conflict of power over who has the final say with respect to an athlete competing. The major actors: team physician, athlete, and coaches, are in competition with one another as one another question the authority the other, resulting in a conflict of competing interests. This comes to question who is responsible in determining when an athlete is deemed fit and healthy enough to resuming play. Dijkstra et al. (2017) argue that the physician overseeing the injury should have the final say in when the athlete is fit to returning to play. Additionally, stating that the “immediate medical management of an ill or injured player on the field of play should be made by the healthcare professional.” Both the expertise and knowledge of the professional in the field of sports medicine carries significant weight as they have been trained and prepared for these scenarios.

Alternatively, Speed and Jacques (2011) claim that the power in determining when an athlete should return to play solely resides with the athlete. They state that: “all decisions are made by the athlete, after thorough counselling by the physician.” While they consider the physician’s expertise with respect to the injury, the patient is still considered to have the final say. This however has the potential to cause multiple sources of issues. For example, should an athlete, being competitive in nature, not take the word of the physician seriously, they impose the risk of a more severe injury.

Historically, coaches and managers of sports teams have been associated with idea of free reign, providing them the power to act in whichever manner they deem necessary to ensure the team’s success. The role of control over an athlete provides coaches the “power to dismiss or punish athletes if not performing to expectations,” (Kuhlin et al., 2020). This uncontested power results in an athlete feeling the need and desire to please their coach in order to continue

competing. The desire of the athlete to perform often clouds their judgement of what is in their best interest. In one such instant, an athlete is reported as saying “I trained despite injury to win back the attention of my coach,” (Kuhlin et al., 2020). This demonstrates both the psychological and physical power that coaches hold over their athletes.

These three actors are all faced with moral and ethical decisions when determining when the time is right to return to play. While physicians have the most medical knowledge on the subject, players have the belief that they know themselves the best, and coaches have the ability to develop or ruin a player’s career. All three believe they are acting in the best interest, thus resulting in the conflict of responsibility and power of what is the best course of action to dealing with an injury.

Player Facing Pressure to Return to Play

Every year, thousands of athletes sustain injuries that result in them missing practices and/or games in order to recover properly. These injuries can range in magnitude from slightly debilitating to life changing. The severity of the injury that these athletes endure ultimately affect their longevity in their respected sports. Logically, it makes sense that these injured athletes should be fully recovered to ensure that there are no long-term negative consequences from returning prematurely. In these instances, it is the responsibility of the coach, the team physicians to monitor their athlete’s health, as well as the athletes right to determine when they feel comfortable to competing again; however, that is not always the case. Phillip Maloney, former NHL coach of the Vancouver Canucks, is reported to have threatened suspension to an injured player if they did not return to play (DiCello, 2001). The threatened player, Mike Robitaille, returned to playing after the team physicians and coach instructed him to play on his injury, resulting in his retirement and disablement. This scenario illustrates the power struggles withing

sports medicine; the medical decision-making space becomes clouded with the player's desire to keep his/her job, the coach's own self-interest in wanting to win, and team physician's judgement developing an ethical and moral issue.

Towards the start of 2017-2018 NBA season, one of the San Antonio Spurs' star players, Kawhi Leonard, injured his quadriceps during a practice; what ensued next was not expected. Despite being cleared by team physicians and sitting out of games for a substantial amount of time, Leonard refused to return to the court (Zucker, 2018). By refusing to play, Leonard demonstrated his own autonomy in deciding when to return to the court. His actions went against team physicians and the head coach, as Leonard decided to take control of the situation he was in. While Leonard refused to play, even though he was cleared by team doctors, it remains uncertain if he would've sustained a more severe injury had he returned when first cleared.

Moral Ambiguity

The Hippocratic Oath, an oath taken by every physician, is a code of ethics where physicians swear to serve their patients to the best of their ability ("The Hippocratic Oath," 1998). While all traditional doctors adhere to this rule, the act of practicing it becomes unclear when sports medicine is involved. Despite still being classified as a physician, team physicians are employed by their respected sports organizations to treat the athletes, keep the players healthy, and perform well on the field. When a player, especially one that is crucial to the franchise's success, suffers an injury, there is a moral and ethical issue that the physician is challenged with. On one side, the physician is ethically responsible with treating the athlete to the standards of the Hippocratic Oath. On the other side, the physician has a duty to their employer. This results in the team physician being challenged with a moral ambiguity as it becomes unclear as to whom they should prioritize: the player's health of the team's success. As

Mitten (2005) states, “the team physician has the potentially conflicting responsibilities of providing medical care to the players ... while also facilitating the club’s ability to win games.” This dynamic relationship between physician-player and physician-team results in the physician being placed into a difficult decision-making situation. Team physicians serve as one unique example where physicians are forced to serve public health and corporate interests; they have a duty to uphold the Hippocratic Oath, yet they also have a duty of deference for the team owners that employ these very individuals.

Active Team Physicians

In today’s society, the ethical concerns regarding return to play for players are still prevalent. Professional athletes in the NFL have been receiving pain relief injectates on game day for the last two decades (Jelsema et al., 2020). Despite players clearly being injured to the point where the pain which that they experience is unbearable, team physicians are still administering local pain relievers that allow the player with the injury. While these players are asking for these injections to play, the ethics in the doctor administering them becomes a concern. In September of 2020, Los Angeles Chargers player, Tyrod Taylor, had his lung punctured as the team doctor was “trying to administer a pain-killing injection to the quarterbacks cracked ribs,” (Schefter, 2020). While playing with cracked/broken ribs is a common occurrence in the NFL, players requiring pain relief in order to play should have a greater focus from the team physicians. Jelsema (2020) examines the ethics of these injections by presenting this question: “Is it ethical to assist someone in masking their pain simply so they can compete in a sporting event when participation may lead to even greater injury?” If the Hippocratic Oath has any merit, the short answer to the first question is no; it is unethical to provide an athlete with temporary relief when the risk for worsening of the injury exists.

Discussion

It becomes evident that traditional medicine and sports medicine are separate fields where different factors need to be considered when patient health and safety are considered. Sports medicine practitioners are tasked with moral ambiguity, as they must balance ethics and moral in determining the most advantageous approach to getting their athletes back to competing for the team. The decisions these physicians must make questions the Hippocratic Oath that they first took when choosing their profession. Every person within a sports organization, from the owner to the players, coaches, and team physicians are all striving for the same goal of victory and glory. However, it is in this journey where questions of ethics and morality come into play. There still clearly exists an ethical dilemma in sports medicine, despite the massive strides the field has made over recent decades. The sports society, as a whole, needs to have a much larger conversation about the roles and responsibilities of the actors within. With the current technology being used in treating and monitoring players' health in professional leagues around the world, moral and ethical issues arise. Live biometric information can be useful in preventative injury strategies, but may interfere with the goals of the sports franchises. Despite a clear growth in sports medicine, and the expected continuance of technological advancements, injuries within sports will always occur. How these injuries are currently treated and how they will be treated in the future requires a further discussion on the ethics of sports medicine when addressing them.

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