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**MANAGING A CRISIS: SHOULD AMERICA CONTINUE TO ENCOURAGE
ITS YOUTH TO PARTICIPATE IN FOOTBALL GIVEN RECENT FINDINGS
ON PLAYER SAFETY AND CONCUSSIONS**

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Abstract

In recent years, more light has been shed on player safety issues when it comes to youth sports, football especially. The major emphasis of concern is on reducing concussion rates among our youth and an exposure to the potentially lifelong disease chronic traumatic encephalopathy (CTE). Financially however, the National Football League (NFL), the highest level of football anywhere in the world, is healthier than it has ever been. If the NFL wants to stay on the fast-track it currently enjoys, concussions and player safety are two issues that it will undoubtedly be under pressure to face. The pros and cons of enjoying a career of football are both real. The concussion risk is there, but should players enjoy a career in football, they can learn life lessons such as teamwork, sacrifice, and responsibility. However, sports participation at early ages is heavily influenced by parents and guardians, so the question remains: do we allow our children to play football, or keep them in a bubble?

Keywords: football, player safety, concussion, CTE, NFL, youth sports, finance, participation

Introduction

America is a country built upon competition. Whether in the sporting world or in the business world, competition is what drives innovation, change, improvement, and ultimately is what fuels the American way of life. Without a doubt the most popular form of competition that ties into both sports and business is American football. Baseball is considered by many to be the pastime of America, but if you look at the numbers or were to take a straw poll of Americans today, you would most certainly find that football is the sport people would watch if they could only watch one. However, football is at a crossroads. According to a study done by the National Federation of State High School Associations (NFHSA), football is the most popular sport among high school boys, with over one million American boys participating in the sport as of 2014-2015 (Kaplan, 2015). The study comes with some staggering results about the popularity of football. The next two closest sports, basketball and track and field, do not even top 600,000 participants yearly, roughly 55-60% of the popularity of football (Kaplan, 2015).

The head-scratching comes into play when you look at the recent numbers. According to that same study by the NFHSA, the popularity of football plateaued in about 2006 after a steep increase in participation from 1999-2006. Since 2006, participation has actually declined from approximately 1.20 million to 1.15 million students (Kaplan, 2015). With that being said, football still remains the most popular sport in high schools across the country by far. However, the fact that the sport is declining in popularity even with the population of our country rising by about three million people per year (The United States Census Bureau, 2016) is certainly alarming.

Of course not all children are destined to play professional sports, but for many of the talented ones that is exactly where they will end up. The National Football League (NFL), the

entertainment cornerstone of America and the world, comprises 32 professional football teams whose combined value totals \$37.4 billion dollars, which is more than the national GDPs of Afghanistan, Cambodia, Jamaica, and over 115 other countries worldwide (U.S. Finance Degree Center, 2015). We have seen now that from both a sporting/participation perspective and from a money/business perspective, the value of football to America and its youth is undeniable. The numbers have been discussed, but the question remains: why? Why is popularity down for our most popular sport? The simple answer lies with two words: player safety. From the year 2013 to the year 2020, the four major networks which broadcast NFL games (CBS, FOX, NBC, and ESPN) will pay the NFL a combined amount of approximately \$5 billion for broadcasting rights (U.S. Finance Degree Center, 2015). With that being said, if an American is anywhere near a television, they will likely be exposed to an NFL game at one point or another. Of course, with heightened exposure comes heightened criticism and fears. The NFL is a showcase, a breeding ground for the biggest, fastest, strongest athletes in the world. When parents are watching a game with their children, they are sure to see great plays, great games, but also, and perhaps most importantly, big hits. Football always has been and always will be a contact sport.

However, over the last couple of years, with more and more of an emphasis placed on news and social media in America, more and more people are being exposed to the dangers of football, and those dangers certainly do have some statistics to back them up. Concussions in the NFL were up from 206 in 2014 to 271 in 2015, an increase of nearly 32% (Seifert, 2016). Over the last couple of years, however, the NFL has also been cracking down on helmet to helmet hits and unnecessary roughness, placing a larger emphasis on player safety (NFL Governance and Operations Committee, 2016) and throwing flags and fines all over the place. With the newfound emphasis on not hitting a player above the waist, you would expect head injuries to decline.

However, they have done the exact opposite as the above numbers indicate. Here is the catch: when you cannot hit a player above the waist, you will have to hit him below the waist more frequently. As expected, the number of ACL injuries rose from 49 to 56 from 2014 to 2015 and MCL injuries rose from 139 to 170 over that same time period (Seifert, 2016).

When looking at the injury numbers, it can be seen that both upper body/head injuries and lower body injuries are increasing, although new rules are trying to prevent the former. This can most likely be attributed to one thing. In the world today where technology is better than we have ever had and nutrition knowledge is better than we have ever had, athletes are simply getting bigger, faster and stronger at a much younger age and quicker pace. The professional game especially is being played at an incredibly fast speed showcasing the best athletes in the world. When you have high speed collisions of men that often times exceed 250 or 300 pounds, you should expect to see injuries. Whether it is accepted or not, the factual evidence is that at least not yet, the rule changes proposed by the NFL are not working, and as evidenced by the drop in participation among youth football, parents are surely taking notice.

This is a problem that certainly needs to be addressed before it gets too much more out of hand. The NFL is too large of a recreational outlet, professional venue, and most importantly, a business. More and more NFL players on the news continue to retire young due to fear of lifelong injuries from playing the game. When parents and children see this, you cannot blame them for hesitating to participate in such a game. So the question is posed: how can participation rates get back to healthy levels and how can the game (and the business of the game) continue to thrive?

Literature Review

Our knowledge about concussions and head trauma has taken a dramatic spike upward in recent years in light of the hype surrounding football and other contact sports. Recently, more has been made of Chronic Traumatic Encephalopathy (CTE), which is a progressive, degenerative disease of the brain (Brain Injury Research Institute, 2016). According to the Brain Injury & Research Institute, CTE is most common in athletes who suffer repeated concussions and trauma to the head/neck region. For that reason, it can be seen why football players are so susceptible to the condition.

Perhaps even more disturbing than the cause of the condition are the symptoms that come along with it. CTE is a condition that can gradually get worse and worse years after a football player gives up the game, and in fact may not even surface until years after retirement from football (Brain Injury Research Institute, 2016). Since CTE is a deterioration of the brain tissue, it is no surprise that the symptoms are debilitating in many cases. They include loss of memory, impaired judgment, behavioral issues such as depression and aggression, difficulty with balance, and eventually probably onset of dementia (Brain Injury Research Institute, 2016).

Sadly, CTE can be difficult for people to live with. In some rare cases, the symptoms are too much for the sufferer. Longtime NFL great linebacker Junior Seau committed suicide in May 2013. It was well publicized that Seau was struggling to cope with everyday life and that possible depression had infiltrated a man who always played the game with such passion, energy, and happiness. The National Institute of Health (NIH), based in Bethesda, Maryland, completed an autopsy of three unidentified brains, one of which belonged to Seau, shortly after his death. They found his brain to be consistent with people who had suffered repetitive head injuries (CBS News, 2016). In fact, a recent study done by the Department of Veterans Affairs and Boston

University found that out of the 91 brains they studied, 87 of them (96 percent) showed evidence of CTE (Scott, 2015). These brains all belonged to deceased NFL players. It has been noted that CTE can only be identified after death through an autopsy, and it is difficult/next to impossible to determine if a living individual has CTE. Therefore, the numbers of the study may be a bit skewed as more than likely, the families that allowed their loved ones brains to be autopsied were more than likely families who suspected that their deceased probably did have CTE (Scott, 2015). Nonetheless, the numbers are troublesome. With the NFL in the public eye more now than ever, it can be seen why parents would not want their children to pick up such a sport where effects post-retirement can be so tough to live with in many cases.

In recent years, early retirement has also been an increasing trend among NFL players. NFL Pro-Bowlers Marshawn Lynch and Calvin Johnson have retired within the past year at ages 29 and 30, respectively (Reimer, 2016). Both Lynch and Johnson were electrifying players who often times seemed larger than life while playing the sport. They made plays nobody else could, made them look easy, and made them often. So why, at such young ages, did these two stars retire? It is important to note that they are not alone. Reimer also notes in his article that former NFL quarterback Jake Locker retired at age 27, former linebacker Jason Worilds at 27, All-Pro linebacker Patrick Willis at 30, and even linebacker/fullback Chris Borland at age 24. These are not simply exceptions, they are case studies for a trend.

As is widely known, NFL athletes are some of the best compensated athletes anywhere in the world. They can rake in incredibly large sums of money incredibly quickly. As with many endeavors in life, the NFL is a risk/reward proposition. If a player comes out of the league healthy and happy, they have the ability if they manage their money correctly to live a long and prosperous life. For some players however, the risks simply outweigh the potential rewards.

Two cases that are important to note are the cases of Chris Borland (retired at age 24) and linebacker A.J. Tarpley, formerly of Stanford, who retired at age 23 after just one NFL season with the Buffalo Bills. As Reimer notes in his article, these players retired due to repeated concussions and fear that their short stints in the NFL would in turn produce a long stint of CTE and struggles to live a normal life after football. For them, the risk was not worth the reward. Both are smart individuals, having graduated from the University of Wisconsin (Borland) and Stanford University (Tarpley). They chose to get out early enough and pursue other endeavors with their degrees over the risk of more concussions and what would most likely be an inevitable diagnosis of CTE over time.

Chris Borland was quoted as saying after his retirement, "I mean, if it could potentially kill you -- I know that is a drastic way to put it, but it is a possibility -- that really puts it in perspective to me," (Reimer, 2016). His sentiments are likely matched by other young players who leave the league so early. Of course, not every athlete gives a definitive "reason" when they retire, but it is impossible to ignore the effects that football can have on the brain and the lifelong health of a player. As discussed, many football players retire directly for that reason, and others certainly do as well, we just do not hear about every single case, only some of the more prominent ones. However, as time goes on and more and more is being made of CTE, we are hearing about it more and more.

Given the recent release of the Will Smith film *Concussion*, more light has been shed upon longtime neuropathologist Dr. Bennet Omalu, who also has strong opinions about youth football. Dr. Omalu was the first doctor ever to discover CTE after performing autopsies on deceased players of the Pittsburgh Steelers (SI Wire, 2015). Bennet states in his opinion piece to *The New York Times* that children should not play football until they are of consenting age.

Bennet also states that over the past two decades, it has been medically proven that repeated blows to the head in contact sports put children at risk of permanent brain damage, however parents keep encouraging their children to participate in such sports (SI Wire, 2015). Dr. Omalu believes that if children continue to play football over many seasons, irreversible damage from CTE is inevitable, and those children will likely be at risk for symptoms such as depression, memory loss, and even suicidal thoughts and actions. According to Dr. Omalu, no parent or guardian should be able to make such a potentially life-altering decision for a child, and children should be given the time to fully understand the risks of football before they are allowed to play at a consenting age (SI Wire, 2015).

From a business perspective, it is no wonder why the NFL and many of its general managers are hesitant to acknowledge the risks of CTE and of playing professional football. They do not want the popularity of the league decreasing, and for good reason. The average NFL team is worth about \$2 billion dollars (FORBES, 2016), and the job of a general manager is to keep that number on the rise. Because of this, football is a game where the players give their all to the league, but often times the league does not return the favor (Reimer, 2016). As Reimer notes in his article, last April a federal judge approved a final settlement between the NFL and more than 20,000 ex-NFL players. The players claimed that the NFL masked the dangers of concussions and that they were aware of the condition of CTE and the risks associated with playing football but failed to report it to the players. As a result, the players got a positive verdict and the NFL will pay out over \$1 billion to those players over the next 65 years (Reimer, 2016). However, Reimer also notes that CTE was not listed in the agreement as the reason for the payout because NFL lawyers were able to prove that the science behind CTE is still too inconclusive to prove it.

On the other side of the coin, we must also discuss the benefits of enjoying a football career. Ever since Hall of Famer Barry Sanders retired from the game in 1999, he has been an advocate for youth football and encouraging children to participate in a safe way (Sanders, 2016). Sanders says in his article that the question he gets asked most is: "Should I let my kids play football at all?" Sanders always replies with a definitive yes, but assures the parents that both they and their kids need to be well aware of the risks as well.

Sanders notes however that if we only look at the negatives of any activity, nobody in the world will have anything left to do. He likes to point out the positives when speaking with parents and children. As Sanders points out, the football field and being a part of a team are both great ways to learn life lessons such as teamwork, goal-setting, responsibility, communication, and hard work. Mr. Sanders says that he has carried those lifelong lessons with him and passed them onto his son Barry Jr., which has molded the younger Sanders into a model young man and allowed him to have a quality education at Stanford University.

Sanders also notes in his article that NFL coaches, medical staffs, and teams in general have gotten much better at monitoring the health of their players and with new rule changes recently put in to emphasize player safety, Sanders says "playing professional football has never been safer". The same sentiments can be issued about youth football. Sometimes to get a better picture than simply what the media paints, you must look at statistics. According to a study conducted by the American Academy of Orthopedic Surgeons, youth football (ages 5-15) had fewer injuries than both youth soccer and youth basketball among the participants studied (Falls Church City Football Association, 2009). Injury numbers are not always what they may seem. When taking a deeper look at the numbers, it can be seen how youth football, with proper coaching and guidance, can be a safe game in relation to other youth sports.

Let us also examine the personal benefits of playing football, which fall right in line with what Mr. Sanders has said. As Peter Schwartz of USA Football notes, if our children have the desire, they should simply be allowed to play football because they love the game. A child should never be forced to choose from sports that he/she does not enjoy, and if football is a sport they love, they will be far more involved and get far more out of the experience (Schwartz, 2015). In addition, Schwartz notes that another huge benefit to children who participate in youth football is improved physical health. Schwartz points to a study conducted in 2012 by the Centers for Disease Control and Prevention that states that one out of every six children in America are obese. As Schwartz notes, playing football, whether it is organized tackle football or flag football at recess, is a great way for children to get the physical activity they need and to stay in shape. Increased participation in football will not solve the obesity problem overall, but it is certainly a step in the right direction for such an important initiative.

It is easy to see how those principles make a lot of sense. Sometimes we may make too much of the personal safety argument and forget that football is a game many kids fall in love with. Taking something a child loves away from them can be a hard thing to do, and they may feel like they are being forced by their parents to live in a bubble, which is something that nobody benefits from.

Shifting to a more financial perspective, perhaps the most helpful perk for many families in need is the fact that football can get their children a free or greatly reduced cost college education. The NCAA collegiate football structure is broken down into four levels: Division I (FBS), Division I (FCS), Division II, and Division III. If an athlete is talented enough to go to a Division I school to play football, they could potentially receive a free college education. For the bowl subdivision of Division I (FBS), most teams generally have around 110 players on the

roster and are given 85 scholarships to give out to those players (Wood, 2014). However, as Ryan Wood also notes in his article, here is the catch: all 85 of those scholarships are full scholarships. There are no partial scholarships in Division I FBS, as a player either receives a full scholarship or no scholarship. However, if an athlete is able to get on one of those teams, it can be seen from the numbers that their chances of receiving a full scholarship to a Division I university are rather promising.

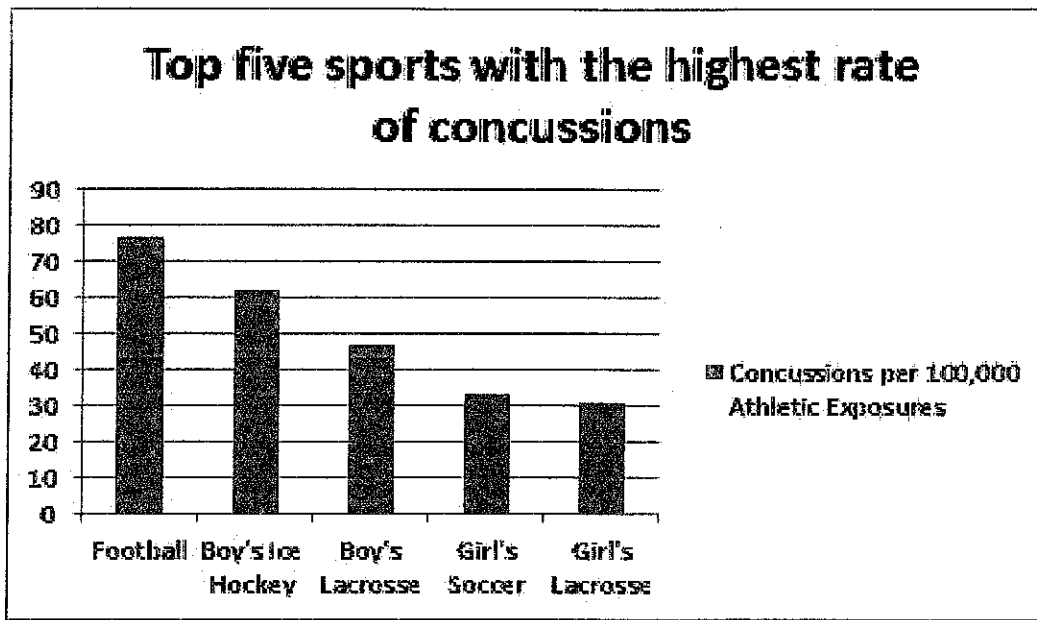
For parents and their children everywhere (and in low-income areas especially), the idea of getting a free college education is a great opportunity. Even if the student-athlete is not talented enough to play in the NFL after college (only two percent of NCAA football players transition to the NFL (NCAA, 2014)), they will still have a degree and will come out of college with no student loan debt, already well ahead of their peers. In addition, the lessons learned through playing college football such as responsibility, time management, being part of a team, and dedication/sacrifice will likely serve them well in future endeavors. It can be understood why then some parents push their children into football if they think they see a special talent in them. The idea of a free college education seems just too beneficial to pass up.

The statistics about youth football safety need to be viewed in perspective with other sports. According to a 2013 study performed by the Institute of Medicine and National Research Council, tackle football did in fact see the highest number of reported concussions among youth sports (Paine, 2014). According to Mr. Paine, the next two sports in line for the highest number of concussions reported were hockey and lacrosse. However, the interesting thing about those two sports is that their participation rates experienced an increase from 2008-2012, as Paine notes. When this is realized, an important question arises. Are concussions and safety actually the top concern for parents when helping their children choose a sport? If that were the case, we

would likely not see the increase in participation rates that we are seeing out of hockey and lacrosse.

There are more logical ways to explain the decline in youth football participation. According to Bob Cook of Forbes, one possible reason for the decline in football participation is the fact that more parents are encouraging their children to specialize in one sport in hopes of mastery so that they can attain a college scholarship (Paine, 2014). This idea makes sense when you think about it. Twenty years ago, you were likely to find children playing basketball, football, baseball, soccer, and track and field all in the same school year. Many crammed in as many sports as they could to get the most out of their high school experience. However, with the change in times has come a change in ideology. College scholarships exist now for many sports that did not exist say twenty years ago. If a child can receive money to go to college and play baseball or lacrosse or hockey, it is highly possible that their parents will encourage them to focus on that sport and that sport only growing up to ensure the chances of playing in college are as high as possible. Undoubtedly, that hurts football. However, it is one logical explanation, other than player safety, as to why many youth are veering away from youth football.

Additionally, Paine points out in his article that baseball and basketball are also experiencing larger decreases in participation than youth football (7.2% and 8.3% respectively). This supports the claim that young athletes are simply moving away from the “big three” to other sports that they can specialize in. However gruesome football may appear when we see it on television, the statistics must be looked at objectively and with a grain of salt. Football is not the only youth sport where participation rates are down, and player safety is not the sole cause of that decrease. **Figure A** below depicts the dangers of any youth sport; concussions are not limited strictly to football. Graph source: (Dzwierzynski, 2012).



The duty of promoting the benefits of football cannot be left solely in the hands of former football players. As mentioned earlier, football is a business, and one of the largest businesses in America at that. As former NFL Pro-Bowler Howie Long and longtime NFL writer John Czarnecki note, the general manager of an NFL team has one of the most important roles in the entire organization. The general manager must be able to have a feel for what the team needs, make difficult personnel decisions, and decide which players to draft, all while working in conjunction with the needs of the coaching staff and the front office (Long & Czarnecki, 2015).

More recently, with increased awareness of the dangers of football and concussions, a new item has been added to the plate of a general manager. General managers often times now have a large public relations staff (Long & Czarnecki, 2015), and part of their duties includes promoting the game to young children. NFL teams make efforts in any way they can to reach youth and promote to them the great game of football through camps, player meet and greets, or any other way possible. The reason for this is apparent. Although it may not seem like it now, young children in America are the future of the NFL 15 to 20 years down the road, and they must

be engaged to help the game from both a participation perspective and a business perspective. The financial security of the NFL depends upon it.

Conclusion

It can be seen from the literature review that whilst concussions are and will likely continue to be a problem needing addressed, they are not the only cause of the recent participation decline seen in youth football. Other youth sports that are plagued by high concussion rates such as ice hockey and lacrosse have actually seen a participation increase in recent years, although nobody is talking about those statistics.

At the end of the day, parents are left with a difficult decision. Should they let their children play youth football, there is always that chance that their child will suffer a concussion. Given the incredibly rare occasion that their child is talented enough to go on to play college or even professional football, the more concussions they could likely suffer and the greater the chance they may develop CTE later in life. However, concussions can be suffered in any sport. A large part of avoiding them will always be luck.

Many parents refuse to keep their children on a leash or in a bubble, and believe that football can teach many valuable life lessons. As noted by many former NFL players, a lifetime of football can teach values such as teamwork, sacrifice, and work ethic. In addition, football can be a pathway for many young men to attend college for no cost and get their degree so that they may pursue a career outside of football when they graduate. The pros and cons are there, but one thing is for certain: the highest level of football, the NFL, is healthier than it has ever been from both a talent perspective and a financial perspective, and football does not appear to be going anywhere anytime soon.

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