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IS THE NFL RESPONSIBLE FOR CONCUSSIONS SUSTAINED BY PLAYERS?

A THESIS SUBMITTED TO THE FACULTY OF THE DEPARTMENT OF SPORT MANAGEMENT IN CANDIDACY FOR THE DEGREE OF MASTER OF SCIENCE IN SPORT MANAGEMENT – SPORT ADMINISTRATION

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ABSTRACT

National Football League (NFL) players have sustained concussions while playing football (Casson & Viano, 2010). There is a growing controversy between NFL players, their immediate families, and the league regarding alleged claims that management should be held responsible for the physical deterioration of former players including compensatory damages for suffering. Family members of current and past NFL players claim league officials provided inadequate education regarding risks associated with playing professional football. Former players are experiencing health issues such as dementia, early Alzheimer's, chronic traumatic encephalopathy (CTE), trouble concentrating and inability to work; in some cases these debilitating life-changing events have caused some players to commit suicide (Lipsky, 2008). This research seeks to discern the dilemma of concussions in the NFL and associated responsibilities of league management.

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ABBREVIATIONS

Allegheny Athletic Association (AAA)

Chronic traumatic encephalopathy (CTE)

National Collegiate Athletic Association (NCAA)

National Football League (NFL)

Pittsburgh Athletic Club (PAC)

Introduction

Sport news headlines have been abundant with stories concerning former NFL players currently suffering from violent headaches, loss of memory, dementia, and early Alzheimer's (Ellenbogen, 2010; Neumann, 2011). There appear to be several recent cases involving former and current NFL players committing suicide that was influenced by some of the suffering experienced due to medical maladies associated with playing football (Amen, 2011). A player for this research is defined as a person who plays a game and is actively involved especially in a competitive field or process (Merriam Webster, 2013). An *athlete* for this research is defined as a "person who is proficient in sports and other forms of physical exercise" (Merriam Webster, p. 1). Many skeptics of football-related concussions have indicated such health issues are coincidental and people commit suicide for different reasons; or that early Alzheimer's as well as dementia are known to develop with age (Casson, 2010). Recently attention has been given to the fact that there may be a link between various cases (Nowinski, 2006). Each of the players associated with these news stories sustained repeated concussions while playing football. Some concussions were documented and the players were required to sit out a few plays, a few games, or possibly the season. Others were not documented and if it was a close game the players were encouraged to return to the field as soon as they felt back to what the player considered normal physical condition (Nowinski).

Former NFL players and their families consider the league to have possessed some degree of knowledge of the harmful effects of repeated concussions and could have yet encouraged those individuals to play through them and perform to their ability to help

the team's chance of winning. It appears some families are motivated to see the NFL held liable for loss and to adjust future play including preventing helmet to helmet hits, restricting play after a certain number of concussions, and further elevating player health. Actions taken by the NFL attempting to settle litigation outside of court might provide reason to suspect officials might have been aware of risks of repeated concussions but did not want to jeopardize ratings or financial gain, have drawn out lawsuits, create bad media, or shed light on a very serious subject (Gove, 2011).

This study will use qualitative means designed as a case study of one individual, Mary Ann Easterling, widow of former NFL player Ray Easterling who committed suicide due to effects caused by concussions (M. Easterling, personal communication, June 5, 2013). Mary Ann was personally interviewed over email providing an account of her relationship with a former NFL player, who was her husband and had suffered from multiple concussions, been diagnosed with dementia, and later took his own life in 2012. This firsthand account of Ray Easterling's struggle, post play in the NFL, through Mary Ann Easterling's interview, shows what everyday life is and was like for some past NFL players who suffered from concussions sustained while playing football in the NFL. This research aims to determine if the NFL could be held liable for concussions former and current players have received and if the NFL should compensate and assist families who have or have had loved ones who have suffered from concussions and concussion related health issues. This research will also look at what the NFL does to protect current and future players.

Purpose and Significance

The purpose and significance of this study is to examine the NFL's methods of addressing or managing head injuries from the perspective of a former participant. The NFL's approach will be analyzed regarding how the league educates about head injuries including prevention, diagnosis, and treatment. This study will add to the body of knowledge on the subject of concussions and liability by interpreting and presenting insight from those affected by concussions, while proposing some additional methods of education for athletes on the concussion risks associated with playing a contact sport. League officials are also under criticism for allegedly providing medical personnel, employed by the league, to administer proper medical evaluations and care. Hannah (2010) noted NFL critics claimed conflict of interest in the matter that could have led to doctors improperly educating, diagnosing, or treating players due to risk of termination if a team did not perform at a certain level.

The major issue behind the NFL and concussion liability is whether or not the league or individual franchises should be held responsible for the health of former and current players who have sustained multiple concussions (Easterling v. National Football League, 2011). Should the NFL be liable due to the quality of education, diagnosis, and treatment players received for and about concussions? This research will also look at the future precautions that can be implemented by the NFL as well as lower football leagues to educate, prevent and properly handle concussions, and ensure proper health for all football players.

Statement of the Research Problem

Should the NFL and its individual franchises be held responsible for concussions sustained by current and former players? Did the NFL know the severity of concussions and how they related to football? Has the NFL instituted preventative measures to minimize risk for current and future players? To what degree could the NFL be held responsible for preventative measures and is the issue up to the league or the individual team and the franchise they represent? What are effects of concussions on NFL players? How does the NFL address and manage concussions with players? What are the standards and practices of the NFL relating to sport medicine and concussions? Is the NFL responsible for compensating players and their families for health care received and or costs associated with deaths of players with known mental issues due to concussions? Can these standards and practice be improved upon and what recommendations can be made for such improvements?

LITERATURE REVIEW

Creation of Football and National Collegiate Athletic Association (NCAA) Rules and Regulations

American football was created in the late 1800s by Walter Camp (Britannica, 2013). It was a derivation from European rugby. Camp established that football would be an 11-man team on offense, trying to score, against an 11-man team on defense, trying to stop the offense from scoring. As part of the Intercollegiate Football Associate, Camp instituted the "quarterback position, the scrimmage line, offensive signal calling, and the requirement that a team give up the ball after failing to advance a specified yardage in a certain number of downs (plays from scrimmage)" (Britannica, 2013, p. 1). In 1883, he established the point scoring system for a touchdown, 6 points, and the extra point after a touchdown, 1-point, the field goal, 3 points, and the safety, 2 points. He coached the Yale football teams from 1888-1892 and was inducted into the College Football Hall of Fame (Britannica).

Playing the Game

Flipping a coin begins the contest and the team that wins the coin toss is awarded the choice of whether to start on offense or defense initially and which end of the field its team would like to try to score in and or defend (Alder, 2013). The field is 100 yards long and has stripes every five yards that run across the field. The end zones, which are used for scoring, are 10 yards long and there is one on each end. The total field is 120 yards long by 160 feet wide. The goal line is where the end zone meets the playing field. The teams are comprised of eleven men on each side; too many men will result in penalties.

There is unlimited substitution as long as play is not in progress and the ball is dead. There is offense, defense, and special teams for each team (Alder).

A football contest begins when one team (team A) kicks the ball to the other team (team B) and they try to catch the ball and run as far as possible towards the opposite end zone until they are met by the kicking team and are either stopped or cross the goal line and score (Alder, 2013). Wherever team B is tackled, if they do not score, they start trying to gain at least ten yards in four tries, called downs. If the team accomplishes ten yards in four tries they get a first down, which means they get to start all over again to try and score points and keep moving down the field. If they score they get to try for an extra point, or two-point conversion. A two-point conversion is when they try to run in the end zone instead of kicking the extra point (Alder).

If the team has tried to accomplish ten yards and failed they will then kick off to the other team, who will then get a chance to score (Alder, 2013). This goes back and forth for four quarters, each of which is comprised of 15 minutes. There is a halftime after two quarters where both teams get a break. There is a certain amount of timeouts for each coach to use and the referees keep track of legal and illegal plays. Illegal plays will warrant penalties that include losing yards. There are special teams in addition to offense and defense that handle kickoffs, punts, field goals, and extra points (Football History, 2013).

NCAA

Football began in the early 20th century as a college sport. While progressing for a number of decades, it experienced repeated injuries and some fatalities, and schools were afraid to offer the sport due to its dangerous reputation. In 1905 two conferences were

held by President Theodore Roosevelt at the White House that aimed to help football become a safer sport for colleges and universities that wanted to participate. These conferences established rules, regulations, and guidelines that could be followed to ensure fair play and most importantly safety of the athletes involved (NCAA.org, 2013). Thirteen colleges and universities first formed the Intercollegiate Athletic Association of the United States in 1906, and the name was later changed to the NCAA in 1910 (NCAA.org).

History of Professional Football

Playing a sport professionally occurs when an individual is paid to participate in the activity. Professional football is defined as "a person engaged in a specified activity as one's main paid occupation rather than as a pastime" (Merriam Webster, 2013, p. 1). Professional football began in 1892 when "two Pittsburgh-area clubs, the Allegheny Athletic Association (AAA) and the Pittsburgh Athletic Club (PAC), created the first professional football player"(NFL History, 2012). "Former Yale All-America guard William (Pudge) Heffelfinger was paid \$500 by the AAA to play in a game against the PAC, becoming the first person to be paid to play football. The AAA won the game 4-0 when Heffelfinger picked up a PAC fumble and ran 35 yards for a touchdown" (NFL History). Players at the high school and collegiate level vary in size depending on what division they play in and the competitive level of the team. However, in the NFL, the players are usually the biggest, fastest, or most talented in their position and obtaining a contract in the NFL is most players' eventual dream job. A starting salary for NFL player as a rookie, first year participant, for the 2013 season will be \$409,000 and there is no cap as to what veterans may receive (Bryan, 2011).

The Modern Game and Football Helmets

Individuals who choose to play in the NFL experience a heightened level of risk and physical injury (Jenkins & Maese, 2013). To help avoid and lessen the severity of those injuries players wear pads, helmets, and other braces during games. Football helmets have evolved over the years to protect players as they get hit and there are penalties in the game for directly hitting a player helmet to helmet. Football helmets initially were made of leather and by the 1950s helmet construction had evolved into hard plastic with internal padding (NFL Helmets, 2012). In the 1960s the double face bar was added to the helmets and in the 1970s energy absorbing helmets with full facemasks were implemented. In the 1980s and 1990s polycarbonate shells and full facemask helmets were introduced. In 2004, the NFL introduced a specially designed helmet to reduce concussions and in 2011, a unique chinstrap was added to detect head injuries (NFL Helmets).

Football is a contact sport comprised of above average sized individuals going as hard as they can as fast as they can while trying to stop someone of equal size from gaining forward momentum (Lipsky, 2008). This in itself proposes a great chance for injury. Of the injuries sustained, concussions are the most controversial because the damage sustained is not always noticed immediately and long-term effects can be extremely hazardous (Landry, 2011).

Concussions, Standard of Care, and Management Protocols

To better understand the level of controversy regarding concussions and associated protocols, it is important to discern some operational definitions. A concussion occurs when the brain is jarred from a heavy blow or violent shock and bounces off the

skull by breaking through the fluid that protects the brain (Landry, 2011). A concussion jars or shakes the brain inside of the skull and while some may lose consciousness there is no standard way to assess if a concussion has happened and if there is resulting brain injury. Concussions can cause serious issues and repeated or severe concussions can lead to long-lasting problems with movement, learning, or speaking.

Symptoms are not easy to detect sometimes and include, but are not limited to, not thinking clearly, feeling slowed down, not being able to concentrate, and not being able to remember new information (Landry, 2011). Physical symptoms can include "headache, blurred vision, nausea, vomiting, dizziness, sensitivity to light or noise, balance issues, sleeping more or less than usual, and feeling tired" (Landry, ch. 680). Emotional and mood changes can also occur and lead individuals to becoming "easily upset, angered, sad, nervous, and anxious" (Landry, ch. 680). Sadly, there is not one easily diagnosable symptom besides a player going unconscious that can be detected immediately (Goldberg, 2009). Concussion effects usually cannot be diagnosed immediately if a player has experienced a head collision, whether or not losing consciousness. In recent years, the increase in head injuries and potential concussions in the NFL has caused a more detailed investigation into diagnosis, treatment, and long-term care relating to the matter.

The NFL protocols associated with managing sports medicine and concussions before 2011 were operationally maintained by each individual franchise and its medical team and or staff. This common practice created discrepancies and prompted questions as to whether teams were appropriately handling concussions or if there should be an overall standard for teams. These discrepancies included whether or not team doctors were doing

what was in the best interest of the players, if players were returning too soon after concussions, and if concussions were being properly diagnosed and treated.

In 2010 it was reported the NFL might have had additional knowledge on the matter beyond the public awareness (Hanna, 2010). Critics claimed that the NFL knew the effects of concussions, due to external research as well as internal committee findings, but did not implement a protocol until after the 2010 season (Hanna; Nowinski, 2006). Hanna surmised team doctors on the field, who may not have had a player's best interest at heart, evaluated them before this 2010 protocol on the spot. The league paid the team doctors and this fact could have ultimately swayed findings on some of the team's best players (Hanna; Schwarz, 2009).

Since 2011, the NFL has established a concussion protocol "hailed as the most important safety measure ever passed by the league" (Bradley, 2013, p. 1). In spite of refuting evidence of previous concussion implications, the league's head, neck, and spine committee developed the new protocol (Gove, 2011). The following section provides an overview describing how concussions are managed.

Before any player can take part in competition,

each player is given a standardized baseline test that obtains information regarding the player's history of concussion, migraines and other medical issues that might relate to future injuries, as well as a baseline NFL Sideline Assessment that includes a symptom checklist and assessment of orientation, memory, concentration and balance. (Bradley, 2013, p. 1).

"The players also undergo more comprehensive neuropsychological testing. These tests will serve as an individual baseline measure to be compared to if a player sustains a head

injury" (Bradley, p. 1). Once an injury has occurred, the injured participant is immediately assessed, if conscious or after regaining consciousness, using the NFL Sideline Assessment including a symptom checklist and measures of orientation, memory, concentration, and balance.

Standard of care is the level to which health is monitored and preserved to ensure that an athlete is functioning at his best (Jenkins & Maese, 2013). The NFL standards of care for players differ because of the social influence of the sport.

Interviews with more than 50 doctors, players, agents, owners and medical ethicists suggest that what the NFL Physicians Society calls the game's 'unique clinical challenges' can result in inconsistent standards in treating players and cause some doctors to depart from best medical practices and safety norms (Jenkins & Maese, p. 1).

An example of this is with the use of Toradol. Toradol is given to ordinary citizens after they have had surgery for pain and no more than five days in a row. In the NFL, Toradol is administered weekly by team doctors to mask pain and keep players on the field (Jenkins & Maese).

Standards of care for players differ greatly from team to team and from health provider to health provider depending on team affiliation (Jenkins & Maese, 2013). Due to the competitiveness between doctors seeking notoriety as an NFL physician, once a practitioner obtains the position, they do not want to lose it (Jenkins & Maese). According to Andrew Bishop, a former orthopedist for the Atlanta Falcons, "the perception is, if a bunch of money is changing hands from the medical side to the team

then that individual will do anything it takes to keep that job and keep that team happy" (Jenkins & Maese, p. 1).

Standards of care for athletes, whether direct or not, can be altered by subtle pressures to win or wanting a certain player to be ready to play for a certain game (Jenkins & Maese, 2013). These subtle pressures can make decisions, such as determining whether or not a player has had a concussion and can return to play, very hard if there is no protocol established to guarantee thorough and correct medical diagnosis (Jenkins & Maese). Before 2010, there was no such protocol and the athlete's standard of care and injury management was at the sole discretion of the team doctors who were paid for by the NFL (Goldberg, 2009).

Currently in the NFL "any athlete that is diagnosed with a concussion is removed from the game and transferred to the locker room" (Bradley, 2013, p. 1). As far as entering the game, again the player diagnosed with concussion can only return to practice and game play when he is symptom free, at rest and with exertion, and his physical and cognitive evaluations are back to normal. The player must then be cleared by both their team physician along with the consulting independent neurological consultant (Bradley, p. 1).

These protocols are a great step in protecting players; however, there was over 100 years of football played where there were no such measures. This leaves room to question why there was no protocol established when concussions were first reported from the 1950s to 1970s. From the 1970s onward there was a plethora of research conducted on concussions and their effects but nothing was done to protect the players (Mangels, 2012).

Research Regarding Cause and Effect Relationships Between Concussions and Health Problems

The New England Journal of Medicine, in 1952, conducted a study revealing players should not continue to play football after three concussions (Gove, 2011; Thorndike, 1952). Since then, players have managed to get even bigger, stronger, and faster and this has led to more intense play, which has also led to more concussions. In response to this study done in New England, the NFL conducted research in the 1970s establishing no known side effects of concussions and decided to establish its first "return to play" guidelines on its own league findings in 2005 (Gove). The span of time from the start of the NFL to 2005 includes many players and many concussions.

Before the adaptation of the "return to play" rules in 2005, the NFL left the return to play procedures up to the team and its physicians (Schwarz, 2009). In 2005, the NFL's new study took a lot of criticism from the scientific community who realized that the NFL's findings were omitting any information that would hinder the league's ability to make money and keep key players on the field. These guidelines were in addition to other player safety rules that were created and all received criticism from experts outside of the NFL world (Gove, 2011).

Dr. Bennett Omalu and *Neurosurgery* published an article that looked at the brains of former NFL players who had sustained multiple concussions. The studies showed that the trauma and damage to the players' brains were triggered by multiple concussions (Hanna, 2010). The findings were astounding and the NFL went on to try to discredit the doctors who had studied the former players' brains and wanted Omalu's article retracted (Gove, 2011). Another clinical study conducted in 2005 by Dr. Kevin

Guskiewicz on over 2500 NFL players found that NFL players who received three or more concussions had a five times more prevalent showing of mild cognitive impairment than those who had no concussion history. The NFL committee attacked Guskiewicz just as they had Omalu and questioned the scientific research (Hanna).

From 2005 to 2007 the NFL published a variety of articles designed to refute findings linking concussion related matters to football (Hanna, 2010). However, studies were showing that "NFL alumni were diagnosed with Alzheimer's disease (or other similar memory-related disorders) vastly more often than the national population--at 19 times the normal rate for men ages 30-49" (Hanna, p. 12).

The issues that prompted the NFL to defend itself were caused by these studies as well as media pressure and the increased numbers of former players who were realizing they were not alone in the pain they were facing (Gibeaut, 2011; Gove, 2011; Hannah, 2010). Four athletes are credited with donating their brains to be studied and beginning the lengthy process of looking at this very apparent issue. Owen Thomas, a NCAA football player, Andre Waters, a NFL player, Chris Henry, another NFL player, and Chris Benoit, a professional wrestler, were all "successful athletes" but that all changed after receiving countless blows to the head (Neumann, 2011). These four athletes passed away long before the individuals reached their later years of life and after their deaths were all diagnosed with chronic traumatic encephalopathy (CTE). Thomas and Waters committed suicide, Henry had an auto accident that should not have killed him but due to head injuries it expedited the injury he did receive, and Benoit killed his family before killing himself with a weight machine. This is a "progressive degenerative disease found in athletes who have had repetitive concussions" (Neumann, p. 2). This is often associated

with "memory loss, confusion, impaired judgment, paranoia, impulse control problems, aggression, depression, and dementia" (Neumann, p. 2).

The NFL interpreted the findings of CTE in players with helmet-to-helmet hits and its response to these players and athletes as it related to football was to put in place limits and fines for players who used their heads as a weapon during play (Neumann, 2011). These steps were also taken at the collegiate level but not the high school level. Hanna noted in 2010 that the NFL from these studies began to alter return to play rules from 2005 to 2009 and finally instituted new return to play rules in 2009 and 2011. The NFL changed the return to play rules to state that if a player experiences and shows signs of concussion related injuries he would not be allowed back on the field or to practice that same day. It also stated that the player must be cleared by the team doctor as well an independent neurological consultant (Neumann).

The NFL appeared to drag out the process and because it took so long to adapt its rules and invested so much energy in refuting medical finds of concussion effects, the NFL created a negative environment for the league. The league was questioned for its aptness in educating its players about the severity of concussions and started to be questioned about how it could be liable for the injuries sustained. This suspicion of potential negligence has led families of past and current NFL players to initiate litigation against the NFL. Some families suspect the NFL possessed knowledge of the effects of concussions while attempting to subdue it by covering up the risks to avoid litigation, financial loss, and possibly having to change the way the sport was played (Samson, 2011).

Past Players Who Realized Their Health Issues Were Wide Spread Amongst Fellow Players and Lawsuits Relating to Negligence

Many former NFL players have been experiencing side effects from multiple concussions and years of playing the high impact sport of football (Nowinski, 2006). With concussion effects becoming more apparent, former athletes started to realize that they were not the only ones who were having health issues (Mangels, 2012). Athletes started getting together and realizing their symptoms were all the same and that something was at the root cause of it all (Samson, 2011).

The first lawsuit brought against the NFL was *Maxwell v. National Football League* in July of 2011. This case involved 75 players who were suing for items such as "medical monitoring, negligence, fraud, fraudulent concealment, negligent misrepresentation, and loss of consortium" (*Maxwell v. National Football League*, 2011). The players claimed that the NFL "knew the risks, failed to warn the players, and are failing to change their ways resulting in even more injuries and possible deaths" (*Maxwell v. National Football League*; Samson, 2011, p. 1).

Vernon Maxwell who played linebacker for several teams from 1983 to 1989 filed the suit joined by 74 others (*Maxwell v. National Football League*, 2011; Samson, 2011). Their main claim was that the NFL knew of head injury issues since the 1950s but did not start warning players until 2010 when they came under fire and scrutiny from outside research. They claimed that the NFL failed "to exercise its duty to enact reasonable and prudent rules to protect players against the risks associated with repeated brain trauma" (*Maxwell v. National Football League*, p. 1). The plaintiffs also claimed that the NFL's failures led to the permanent brain injury and deaths of former and current NFL players

(*Maxwell v. National Football League*). The group cited over 36 different reports and studies that showed the effects of head trauma and concussions and stated how the NFL in 1994 tried to fight off independent research that differed from its findings by sending letters to the journals asking them not to publish their findings (Samson).

Each of the plaintiffs has a personal story as well as individual personal struggles, which are cited in the lawsuit. These players are just a small handful of players who suffer from concussions. Over 90% of concussions go undiagnosed because of lack of knowledge about the symptoms and effects (Weir, 2007), meaning that players probably experience many other concussions and are not necessarily treated correctly or at all. "An athlete who suffers one concussion is three to six times more likely to have a second and the second is often more severe" (Weir, p. 2). Second impact syndrome is when the brain swells and breathing stops, leading to a 50% chance of survival if the concussions are too close together. Andre Waters, who was spoken of earlier and died at the age of 44, endured so many concussions that he suffered from depression and when a study was done on his brain it resembled that of an 85-year-old man who had extreme Alzheimer's (Weir).

Two months after the first lawsuit was filed, Ray Easterling, a former safety for the Atlanta Falcons, filed the first class action federal lawsuit that included seven players. He filed for the same reasons as those who filed the first lawsuit and adamantly argued that the NFL had knowledge for 35 years that could have helped minimize concussions and their effects on its players. Part of Easterling's argument was that "despite the findings of the study (done by the NFL), showing that 6.1% of retired NFL players age 50 and above had reported being diagnosed with dementia, Alzheimer's disease and other

memory related illnesses," the NFL still claimed there was no connection (*Easterling v. NFL*, 2011). These findings were appalling considering that the percentage of injuries being diagnosed in the NFL were five times greater, "compared to a 1.2% for all comparably aged U.S. men" (*Easterling v. National Football League*, p. 1). Ray Easterling filed this lawsuit just months before he committed suicide. The Easterlings are close personal friends and it has been eye opening to see firsthand the experience, trauma, and torture that these former players, as well as their families, are going and have gone through. Ray's wife, Mary Ann Easterling, has been interviewed by news and sports programs about the death of her husband and the lawsuit against the NFL.

Barnes v. NFL was also a groundbreaking case, which involved a suicide as well as the addition of lawsuits by players who are still alive. These cases are showing how injuries can progress and the way they affect life for these players and their families (*Barnes v. National Football League*, 2011). There was also the *Finn v. National Football League* lawsuit, which included an allegation regarding the administration of Toradol by the NFL, which is given to reduce pain and swelling (Anderson, 2012; *Finn v. National Football League*, 2011). The NFL has taken many measures to protect its image, the sport, its finances, and its reputation by making concussions a minor issue. As of June 1, 2013, there are more than 4,800 named player-plaintiffs in the 242 concussionrelated lawsuits. Including the players' spouses, there are more than 5,800 plaintiffs total (NFLconcussionlitigation.com, 2013).

This is an epidemic that has taken the lives of 10 players to date. Most recently was Junior Seau who committed suicide at the age of 43. Seau's family has added its lawsuit for wrongful death to the others in the NFL litigation. Seau played for San Diego,

Miami, and New England during a 20-year career, which ended with his retirement in 2009. He was diagnosed with chronic traumatic encephalopathy, or CTE, after his death (USAtoday, 2013).

NFL Managerial Actions That Suppressed the Concussion Issue

Based on claims from former players who hypothesized that the NFL manipulated the concussion issue, this matter has a long history in managerial practices by top-level NFL executives (Samson, 2011). The plaintiffs against the NFL have claimed league players did not have "actual knowledge of the specific risk at issue and only had constructive notice" (Hanna, 2010, p. 3). There has been knowledge of the effect of concussions since the 1970s, when high schools and colleges began instituting new safety standards for helmets, certain plays, and monitoring of concussion-like injuries and instances (Gibeaut, 2011).

The NFL during this time failed to prevent injuries involving the head; in fact, during the 1990s the teams within the NFL encouraged and coached players on proper hitting technique to maximize impact by using the head (Gibeaut, 2011). Ultimately in 2007, the NFL publically admitted that it had been studying the effects of brain damage since the early 1990s but that until June of 2010, the players maintain that the league never warned them that concussions can cause dementia, encephalopathy, memory loss, and related conditions (Gibeaut, p. 2)

The NFL has now imposed fines for head spearing (Gove, 2011), teams are required to sit out players who have been diagnosed with concussions (Lipsky, 2008), and many previous players have been diagnosed with CTE, a brain disorder (Butting

Heads, 2009). The problem is that the NFL as an organization does not want to slow its pace as being America's leading sport. Because of this, concussions have been and still are seen as a roadblock to that success. Players' contracts incentivize them to play regardless of their injuries. "NFL player contracts do not guarantee player payment beyond the season in which an injury occurs," which leads to "players withholding their concussion symptoms from team management" (Hanna, 2010, p. 14).

The NFL claims individual players decide to play (to work for an individual franchise) and assume the risks associated with football employment (Casson, 2010). Players too know that playing a contact sport at the level of NFL contains a certain amount of physical risk (Samson, 2011). The issue at hand is not the assumption of risk and responsibility by NFL players but instead an alleged attempt to hide and cover up sport science findings regarding the severity of concussions (*Easterling v. National Football League*, 2011). The acuteness of concussions and the knowledge the NFL had could have influenced decisions by players as to whether or not they wanted to risk playing (*Easterling v. National Football League*, 2011). This courtesy of relaying information pertaining to players' health is what the former players are most upset about (Ellenbogen, 2010). They are playing a game, and while it is physical, is it worth years of brain injury or even death (*Easterling v. National Football League*, 2011)? The NFL is currently doing all they can to educate and protect players; however, plaintiffs against the NFL claim there were times when this was not the case.

All of this information points to the observations that players who played prior to 2011 did not have proper information regarding the science behind concussions and the effects of concussions, and in the process of not educating players the NFL made every

effort possible to keep its name clean and out of the media (*Easterling v. National Football League*, 2011; Goldberg, 2009). Before the 2010 return to play rule changes, coaches were encouraging players to play as is or risk losing their positions on the team even when suffering a concussion the same day at practice (Goldberg).

It appears the NFL might not have taken into full consideration the measures taken by the NCAA and high schools in the 1970s regarding helmets that helped protect the brain, and no changes were made until the 1990s (Lipsky, 2008). The NFL even had a board, since 2007, for "head-injury disability" that decided which players' cases warrant disability claims, and has handed out over \$13 million to 166 players, yet none of these findings and determinations are ever made public (Gibeaut, 2011, p. 2).

To sway any outside opinions, the NFL had its own team of researchers led by Ira Casson who over and over again said that findings are "hard to interpret" (Casson, 2010, p. 1). Casson says in his research that these injuries and side effects were caused from childhood and adolescent injuries and that it is just a coincidence that they also happened to play in the NFL (Casson & Viano, 2010). Studies revealed retired players from every position who played a minimum of 3 years had at least one symptom that is caused by concussions (Amen, 2011).

Future Implications of Concussions, Their Effects, and Prevention

Whether or not these lawsuits and allegations against the NFL garner any compensation for the players and their families, the matter of safety is still a pressing issue. Whether or not the NFL is liable does not change the fact that multiple concussions are proven to cause brain injury and the severity of those injuries cannot be measured but in long spans of time. Players who played in the 1970s and 1980s are now in their 60s

and are realizing all those years of hits in football are becoming evident in their bodies (Goldberg, 2009). More recent players in the 1990s and 2000s are seeing those effects on their fellow NFL alumni and are realizing what could possibly happen to them in the future (Nowinski, 2006).

Concussions are no laughing matter and whether there is anyone to blame or not, players, coaches, and league officials at all levels need to realize their severity and that no game is worth brain injuries or a player's life. Players need to know it is okay to stop playing and when to stop. Along with the players, coaches should want to provide a standard of care that is in the best interest of their players (Persky, 2013). What exactly is the standard of care for football players? According to W.Burlette Carter, a professor who teaches sport law and evidence at The George Washington University Law school, the standard of care "is contextual, and it will be different than what would be applied to the average person" (Persky, p. 1). Coaches need to have the best interest of their players at heart and not worry about winning and losing. Standards of care according to the NFL, and Brad Karp, the chair of the lead outside counsel for the NFL, are to always have the health and best interests of the players at heart. Karp goes on to say that "the health and safety of players at all times trump competitive interests, and that culture is communicated to players through ongoing education, dialogue, monitoring, constant assessment, and reinforcement of policies" (Persky, p. 1). The players however find all of this hard to believe since the NFL is a big business that brings in over nine billion dollars in gross income every year and the average game attendance is over 67,000 people. "When sports became big business, teams had other things to consider, not just the

players' health, but the bottom line. That has always been a difficult balance to strike and still is" (Persky, p. 1).

The players who have filed the lawsuits against the NFL claim that the NFL failed to provide proper standards of care, and encouraged "playing hurt" in order to keep the fans happy and the money coming in (Persky, 2013, p. 1). The players maintain that the focus needs to be on playing a quality game of football but also on what kind of men these players will be in the future as husbands, fathers, and citizens long after the effects of football have caught up with them. NFL officials need to instill that health is a priority and smart practices should be adopted (Nowinski, 2006).

Professional players have the ability to make an impact in many ways on future generations of football through their play, behavior, and health practices. While the NFL has already taken many measures to reduce injury through protective helmets, game play changes, return to play rule changes, and penalties for hitting helmet to helmet, there still need to be some fundamental changes to ensure longer years for players on and off the field (Nowinski, 2006).

NFL Management's Job as a Leader in the Industry to Protect and Support Future Generations and Create an Example for the NCAA and Youth Athletes

The NFL claims that it wants to be the leader in showing how to properly play football at the professional and lower levels (Persky, 2013). Now the question is what can the NFL do to change its public perception and make a positive impact on the future of the sport by dealing with the issue of concussions? It is well known now by players and coaches at the professional level that concussions can lead to brain injury and multiple concussions can seriously impact a person's ability to function and reason in the future

(Neumann, 2011). This in turn causes pain for the player and his family and the risks of playing football greatly increase with more injuries. The NFL has already taken steps to create a "safer" way to play the sport and is encouraging it by partnering with the youth organization USA Football, through its Heads Up Football, a "program purporting to teach new techniques that literally take the whole head out of actual tackling and theoretically reducing the risk of brain trauma and helping concerned parents feel less anxious" (Hruby, 2013, p. 1).

The NFL is striving to "eliminate hitting and tackling that result in blows to the head while continuing hitting and tackling otherwise because, hey, this is football" (Hruby, 2013, p. 1). The NFL's experience with concussions and their after effects should be inspiring for the NCAA to begin implementing policies of its own. The NCAA currently has no concussion protocol that applies to all teams (NCAA, 2013). The NCAA leaves the decision up to each individual school and its own concussion management plans (NCAA). However, the NCAA has gone to great lengths to make players and coaches aware of concussion hazards and has policies it suggests should be implemented (NCAA). While all of the NFL's issues with concussions will not prevent future issues, it has started a discussion that is carrying through to other contact sports and is paving the way to hopefully providing entertainment for fans while promoting healthy lifestyles during and after play.

The NCAA and NFL have partnered together to help push concussion legislation for youth athletes in football and other sports (NCAA, 2013). There are over 38 million youth who participate in organized sports and there is little protocol to handle concussions at that age (NCAA). This legislation would strive to create awareness to

parents, players, and coaches and require an outside doctor to assess, treat, and clear the players before they are allowed to return to play after a head injury (NCAA). This approach would resemble the NFL protocol. Taking care of athletes from an early age is the best chance to minimize injuries and their effects in the future.

METHODOLOGY

Introduction

The purpose of this study is to determine if the NFL is responsible for concussions sustained by players and to do so by examining the NFL's methods of addressing or managing head injuries from the perspective of a former participant. This study will add to the body of knowledge on the subject of concussions and liability by interpreting and presenting insight from those affected by concussions. This is an important issue to research as it affects over 20,000 past NFL players and their families, current NFL players, as well as collegiate and youth players that may eventually feed into the NFL. For this study a former NFL player's wife was presented questions regarding her and her husband's experience while he was a football player in the NFL and the years after he stopped playing.

Research Design

The type of study that will be done for this research is a case study. A case study helps find trends in situations that can help with discerning scientific disciplines (Shuttleworth, 2008). A case study takes a deeper look into a certain issue rather than a vague overview (Shuttleworth). While it does not always answer every aspect of a question it can elaborate on a subject at a different level than broad research (Shuttleworth). For this research, a case study method was chosen because of the research's focus on a particular individual and description about the injuries sustained, with the implications measured on a singular case basis. The case study interview was

conducted by the researcher emailing the participant and the participant responding in email back to the researcher. The data received from the participant was validated through comparison with other interviews she has participated in, a review of records showing Ray Easterling's playing years with the NFL, and her comments describing personal observation of Ray Easterling as well as conversations she had with him (Washingtontimes.com, 2013).

The following questions were asked via email by the researcher to the participant:

- How many years did Ray Easterling play? And in what year did you first notice signs of issues relating to concussion symptoms?
- 2. Did Ray Easterling have any idea of how many concussions he received that were either diagnosed or undiagnosed?
- 3. Did the NFL ever give you or Ray Easterling documentation about the risk of concussions and their long-term effects?
- 4. Did Ray Easterling play college football, and if so did he have any diagnosed or undiagnosed concussions?
- 5. What was his ultimate goal in filing the class action lawsuit and what do you hope comes out of all of this for families and future players?
- 6. In your words as his wife, can you tell me what it was like to see Ray Easterling change due to his dementia and how it affected you and your family?

Participant

The participant in this case study was Mary Ann Easterling from Richmond, Virginia, who is the widow of former NFL player Ray Easterling; he was a safety for the Atlanta Falcons in the 1970s. Mary Ann is a female, 60 years old, Caucasian, and a personal family friend. There was only one participant in this study and the sampling procedure was purposive as the participant was directly related to the former player who suffered from brain injuries related to playing football in the NFL.

Setting

The study was conducted electronically by email with messages from the researcher to the participant. This was chosen because of the convenience it offered the participant to answer on her own personal schedule.

Researcher's Role

The researcher has known the participant for the past 15 years, by way of being a family friend. The participant is a principal at a small elementary and secondary Christian school where the researcher's mother works and teaches.

The researcher designed the questions as a means to evoke the truth and real life view of the participant. It should be noted the researcher did not have a connection to the past NFL player discussed in the research, and that the researcher is an avid sport fan. Initiating the research, there were no preconceived notions of blame or fault, by the researcher, for the NFL, the participant, or the past player. The data and analysis were simply the presentation of the facts presented by the participant and were not biased in

any way by the researcher. The role of the researcher in this case study was to simply ask the research questions and present the data gathered.

Data Collection

To answer the questions posed in the research study, the researcher created the research questions and emailed them to the participant. The participant directly responded to the questions in the email and returned the responses to the researcher. The replied responses in the email showed that no formatting issues skewed the original questions or the results and that the participant answered the original questions posed. The participant returned her answers over email within a 24-hour time frame.

There was only one method for collecting data from the participant and that was through the questions via email. Oral consent was obtained from the participant before the researcher initially; however, written consent occurred after she had already answered the email questions due to the lack of knowledge that the researcher needed written consent. This was brought to the researcher's attention during the thesis defense and was immediately rectified and consent was obtained. Following IRB guidelines, the researcher created the consent form, which was hand delivered to the participant in a sealed envelope and then returned signed in a sealed envelope.

Data Analysis

Data analysis consisted of reading the responses from the participant and presenting that data as it related to the questions that are relevant to expanding the knowledge of the brain injury issue within the National Football League. The data gathered is as follows. After receiving the email response from the participant, Mary Ann Easterling, the following comments were recorded:

- Ray Easterling played in the NFL for the 1972-1979 seasons and before that for the University of Richmond. Easterling retired at the end of the 1980 training camp, due to personal reasons (M. Easterling, personal communication, June 5, 2013).
- Mary Ann first noticed the insomnia and depression in 1991. Ray was only aware of two concussions he suffered during his playing days. He remembered those two instances because he was told he was "knocked out cold" and remembered the circumstances surrounding those severe events. Other than those two substantial ones no other ones were documented or diagnosed during his college or professional playing years (M. Easterling, personal communication, June 5, 2013).
 - Ray Easterling's ultimate goal in filing the class action lawsuit "is to hold the NFL accountable for their negligence and fraud." Mary Ann Easterling noted, "My prayer is that the retired players will be able to get the testing and help they need in dealing with the after effects of head trauma" (M. Easterling, personal communication, June 5, 2013).
- Mary Ann identified "My husband's health due to his years in the NFL showed a change in personality, the inability to do simple things such as find his way home, remember my name, and he was only 62 years old"
 (M. Easterling, personal communication, June 5, 2013).
 - Mary Ann said "his physical health was still amazing, running five miles every day, while his mental health was in shambles." Although no exact reason will ever be known, she believes that he took his own life because

he was miserable and was not able to function normally (M. Easterling, personal communication, June 5, 2013).

- He told a friend "it was like his brain was on fire." Having once been a successful athlete and businessman this "burning in his brain" slowly destroyed him (M. Easterling, 2013).
- Mary Ann indicated the NFL provided no documentation regarding the risk of concussions or long-term effects (M. Easterling, personal communication, June 5, 2013).
- As Mary Ann says, "life was a roller coaster. I never knew when he was going to lose his temper and do something irrational. It was so disheartening because he was an articulate and able speaker before it started to affect him. He had such joy before and then he did not want to go on living. The contrast was frightening. The worst was not knowing the 'why'" (M. Easterling, personal communication, June 5, 2013).

Trustworthiness

The researcher has no ulterior motives regarding the research information that was gathered. There is no direct financial or personal tie to the results of the research for the researcher or participant. The researcher's intention is to provide unbiased research and report the research as it was originally obtained from the participant. The participant is trustworthy and credible and has provided the same responses in many different research settings and interviews (Brown, 2012; Tierney, 2012; Washingtontimes.com, 2013). The research is timely because of its direct relationship to medical findings described by the participant as items verified by trusted medical staff.

Ethical Issues

This researcher's intention is to provide accurate information that represents the true findings of the research. Being truthful and unbiased is key as a Christian to providing sound research that can be accepted and studied in the present as well as the future. This researcher will not aim to protect any parties involved in the research but simply state the information that is extracted and apply it as ethically as possible to other research as well as outside conditions. Because of the nature of this topic regarding health, money, and the largest sport industry in America it is critical to make sure that all information is presented in a fair manner and represents each side accurately.

CONCLUSION AND SOLUTIONS

Now that 30 plus years have elapsed and thousands of players have participated in the NFL, should the league be held responsible in these suits to compensate the players and families involved? This question might have been partially answered on August 29, 2013, when the NFL agreed to pay a settlement to former players for \$765 million (The Associated Press, 2013). The settlement was reached in response to a litigation brought by lead plaintiff, Ray Easterling, and over 4500 other former NFL participants (The Associated Press). Some of the 18,000 retired NFL participants would have access to a portion of the settlement based on the individual's condition. Additionally, a portion of the proceeds of the settlement would be allocated to researching brain injuries (The Associated Press).

The NFL's commissioner Roger Goodell told NFL lawyers to "do the right thing for the game and the men who played it" (The Associated Press, 2013). The settlement will be awarded differently to those players who were diagnosed with Alzheimer's, \$5 million each, those who were diagnosed with chronic traumatic encephalopathy, \$4 million each, and \$3 million for players with dementia (The Associated Press). This decision by the NFL to settle with the retired players and families is monumental in the overall concussion liability story. The settlement means that the "NFL will not have to disclose internal files about what it knew, and when about concussion-linked brain problems" (The Associated Press, p. 1).

A settlement is defined as a "formal agreement of decisions that ends an argument or dispute; an amount of money that someone receives as part of such an agreement; the

act or process of settling an argument or disagreement; the act of paying back money that is owed" (Merriam Webster, 2013, p. 1). Settling a civil suit results in positives for both sides of the issue and does not always show an admission of guilt (Lawyers.com, 2013). There are many different strategies behind settling, which can include limiting expenses, stress, privacy, predictability, time, finality, flexibility, and no guilty verdict (Lawyers.com). By settling, the NFL can pay for a mistake that they believe happened but it does not have to admit to any wrongdoing (Lawyers.com). As of the final edit of this paper the settlement was denied by the court due to lack of specificity.

To those who believe the NFL always had the best interests of the players at heart, including the NFL, this solidifies their stance and shows they are willing to support and care for the players, according to Goodell (The Associated Press, 2013, p.1). Even though the NFL has made changes to protect current players, it has never agreed, until this settlement, to pay any funds to past players who sustained concussions and concussion-like symptoms (*Easterling v. National Football League*, 2011).

It is this researcher's opinion, and only an opinion, that the NFL should be held responsible for the concussions sustained by players, who played from 1960s through the 2011 season. If the NFL for any reason failed to educate players and coaches on concussions and their effects, the league would be able to hide proof due to the legal constraints on the settlement and associated procedures (The Associated Press, 2013). The settlement is going to require that the NFL pay for testing and treatment to help previous players, like Ray Easterling, and their families deal with their altered lives due to football and concussions (Edholm, 2013).

The league is now responsible for those players who enter assisted living at 63 instead of 83 and will help provide mental, physical, and emotional care through the monies award to the retired players and their families. The NFL should now be responsible for providing "separate relief for medical monitoring, as well as compensation and financial recovery for the long-term/chronic injuries, financial losses, expenses, and intangible losses" (*Easterling v. National Football League*, 2011, p. 1).

While the NFL has already taken steps to further reduce concussions and their effects, the overall perception on concussions needs to be changed (Hruby, 2013). In this researcher's opinion, the NFL should consider adjusting the return to play rules to include adjusted time off if the concussion is not the player's first (Gove, 2011). New NFL rules and contracts should state that if a player chooses to return to play after two reported concussions, that individual would waive all rights to mental and physical compensation and care should they decide to continue to play and risk a third concussion (Gove).

While players have the right to play, it is this researcher's opinion that the league should not be responsible should the player elect to play after two concussions and take unadvised risk. Just as it is a risk to drive a car, fly on a plane, or play sports in general there is also risk associated with football. Players should be offered the best care and treatment for short- and long-term effects, but if the player wants to play beyond two concussions, that individual takes matters into his own hands. If youth leagues, high schools, and the NCAA all take concussions as seriously as possible, there should be recorded instances of all concussions and head injuries should a player reach the NFL.

If a player enters the league with pre-existing concussions equal to two concussions, then that player would agree not to receive any compensation should they

receive their third concussion. If a player enters with one concussion that player would agree that the NFL would only have to compensate for half of the treatments or tests should the player receive an additional concussion. The NFL is a leader in the sport and what it does will impact the future of the sport, players, administrators, and fans (Ellenbogen, 2010).

By instituting this researcher's new rules, the NFL would be able to show college and high school players that concussions are not an insignificant matter and receiving one will affect playing time and compensation should a player choose to play beyond two reported concussions. The magical three-concussion limit is based on evidence from the Centers for Disease Control that says those who receive three concussions "were 3 times more likely to sustain another concussion than those with no concussion history, with an increased likelihood of recurrent concussions increasing with the number of previous concussions" (CDC, 2013, p. 1).

The more knowledge and time that is given to properly diagnosing and treating concussions at the professional, collegiate, and youth levels, the more players will understand their risk and make the best personal choices for their playing and post-playing days (Kimbler, 2011). Past NFL participants need to have support during their health battles and current and future players need to know the risks associated with playing America's great game of football.

REFERENCES

- Alder, J. (2013). Football 101--The basics of football. Retrieved from http://www.football.about.com/cs/football101/a/bl_football101.htm
- Amen, D. (2011). Reversing brain damage in former NFL players: Implications for traumatic brain injury and substance abuse rehabilitation. *Journal of Psychoactive Drugs*, 43(1), 1-5.
- Anderson, P. (2012). NFL concussion litigation. Retrieved from http://nflconcussionlitigation.com/?page_id=18

Barnes v. National Football League, Inc. No 11-cv-08396 (C.D.CA October 11, 2011).

Bradley, B. (2013). Protocols of the games: NFL sets standard with guidelines. Retrieved from http://www.nflevolution.com/article/Protocols-of-the-games-NFL-sets-standard-with-guidelines?ref=10515

Brittanica.com. (2013). Walter Camp. Retrieved from

http://www.britannica.com/ebchecked/topic/91052/Walter-Camp

- Brown, C. (2012). NFL concussion conundrum: Can safety, violence co-exist? Challenge is daunting. Retrieved from www.sportingnews.com/nfl/story/2012-05-08/cansafety-violence-co-exist-nfl-faces-daunting-future
- Bryan, D. (2011). NFL minimum base salaries. Retrieved from http://www.steelersdepot.com/2011/07/2011-2014-nfl-minimum-base-salaries/

Butting heads. (2009). Nature Neuroscience, 12, 12.

Casson, I. (2010). Do the 'facts' really support an association between NFL players' concussions, dementia, and depression? *Neurology Today, p. 1*.

- Casson, I., & Viano, D. (2010). Twelve years of National Football League concussion data. *Sports Health: A Multidisciplinary Approach*, *2*, 471.
- CDC. (2013). Concussion in sports and play: Get the facts. Retrieved from http://www.cdc.gov/concussion/sports/facts.html
- *Easterling v. National Football League, Inc.* No 11-cv-05209 (E.D.PA. August 17, 2011).
- Edholm, E. (2013). NFL, players reach whopping \$765m settlement in concussion case. Retrieved from sports.yahoo.com/blogs/nfl-shutdown-corner/nfl-players-reachwhopping-765m-settlement-concussion-case-165508435—nfl.html
- Ellenbogen, R. (2010). The National Football League and concussion: Leading a culture change in contact sports. *World Neurology*, *74*(6), 560-565.
- Finn v National Football League, Inc. No 11-cv-07067 (NJ. December 5, 2011).

Football History. (2013). Retrieved from

http://coefaculty.valdosta.edu/jiri/the_history_of_american_football.htm

- Gibeaut, J. (2011). Thrown for a loss: Retired players sue, claim NFL hid brain damage info. *ABA Journal*, *97*(11), 16.
- Goldberg, D. (2009). Concussions, professional sports, and conflicts of interest: Why the National Football League's current policies are bad for its players' health. *HEC Forum*, *20*(4), 337-355.
- Gove, J. (2011). Three and out: The NFL's concussion liability and how the players can tackle the problem. *Vanderbilt Entertainment and Technical Law*, *14*(3), 649.

- Hanna, J. (2010). NFL shaky concussion policy exposes the league to potential liability headaches. *The Entertainment and Sports Lawyer*, 28(3), 9.
- Hruby, P. (2013). The myth of safe football. Retrieved from http://www.sportsonearth.com/article/43419226/

Jenkins, S., & Maese, R. (2013). NFL medical standards, practices are different than almost anywhere else. Retrieved from http://www.washingtonpost.com/sports/redskins/nfl-medical-standards-practicesare-different-than-almost-anywhere-else/2013/03/16/b8c170bc-8be8-11e2-9f54f3fdd70acad2_print.html

- Kimbler, D. (2011). Concussion and the adolescent athlete. *Journal of Neuroscience Nursing*, 43, 6.
- Landry, G. L. (2011). Chapter 680: Head and neck injuries. Nelson Textbook of Pediatrics. (19th ed.) Philadelphia, PA: Elsevier Saunders..
- Lawyers.com. (2013). To settle or not to settle? That is the question. Retrieved from research.lawyers.com/to-settle-or-not-to-settle-that-is-the-question.html
- Lazarus, A. (2011). NFL concussions and common sense: A recipe for medical errors and a lesson for physician leaders. *Physician Executives Journal*, *31*, 1.
- Lipsky, B. (2008). Dealing with the NFL's concussion problems of yesterday, today and tomorrow. *Fordham Intell*, 18.

Mangels, J. (2012). NFL could face thousands of lawsuits from ex-players over brain damage from concussions. Retrieved from http://www.cleveland.com/science/index.ssf/2012/05/thousands_of_explayer_lawsuit.html

Maxwell v. National Football League, Inc. No 11-cv-08394 (CA. October 11, 2011).

Merriam Webster. (2013). Retrieved from http://www.merriam-webster.com/

NCAA. (2013). NFL and NCAA push for youth sports concussion legislation. Retrieved from

http://www.ncaa.org/wps/wcm/connect/public/ncaa/resources/latest+news/2011/ju ne/nfl+and+ncaa+push+for+youth+sports+concussion+legislation?pageDesign=p rint+template

- NCAA.org. (2013). Chronology of enforcement. Retrieved from http://www.ncaa.org/wps/wcm/connect/public/NCAA/Enforcement/Resources/Ch ronology+of+Enforcement
- Neumann, L. (2011). Raising awareness of the severity of concussions. *The Sport Journal*, 14, 1.

NFLconcussionlitigation.com. (2013). Retrieved from nflconcussionlitigation.com.

- NFL Helmets. (2012). History of the NFL football helmet. Retrieved from http://www.nfl.com/news/story/0ap100000095139/article/history-of-the-nflfootball-helmet
- NFL History. (2013). History 1869-1910. Retrieved from http://www.nfl.com/history/chronology/1869-1910
- Nowinski, C. (2006). *Head games: Football's concussion crisis from the NFL to youth leagues*. East Bridgewater, MA: Drummond Publishing Group.
- Persky, A. S. (2013). Playing it safe? Are concussions ruining sports? Retrieved from http://www.dcbar.org/for_lawyers/resources/publications/washington_lawyer/apri 1_2013/playing_safe.cfm

Samson, K. (2011). Former players sue NFL alleging cover-up of concussion risks. *Neurology Today, p. 1-2.*

Schwarz, A. (2009). N.F.L. issues new guidelines on concussions. *The New York Times*. Retrieved from

http://www.nytimes.com/2009/12/03/sports/football/03concussion.html

Shuttleworth, M. (2008). Case study research design. Retrieved from

http://www.explorable.com/case-study-research-design

The Associated Press. (2013). NFL, ex-players agree to \$765m settlement in concussions suit. Retrieved from http://www.nfl.com/news/story/0ap1000000235494/article/nfl-explayers-agree-to-765m-settlement-in-concussions-suit

- Thorndike, A. (1952). The trauma of athletics. *The New England Journal of Medicine*, 246(10), 335-339.
- Tierney, M. (2012,). Former player's suicide won't end his widow's fight. *The New York Times*, 3 May, p. 1.

USAtoday.com. (2013). Junior Seau lawsuit merged with pending concussion litigation. Retrieved from http://www.usatoday.com/story/sports/nfl/2013/04/02/junior-seauconcussion-lawsuits-litigation-arbitration-philadelphia/2047043/

Washingtontimes.com. (2013). Topic--Mary Ann Easterling. Retrieved from http://www.washingtontimes.com/topics/mary-ann-easterling/

Weir, K. (2007). Hard knocks: Young athletes lack lifesaving knowledge about head traumas. *Current Science*, *93*(2), 8.

April 28, 2014

Lindsey Reid IRB Exemption 1854.042814: Case Study Interview Regarding National Football League Concussions

Dear Lindsey,

The Liberty University Institutional Review Board has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and that no further IRB oversight is required.

Your study falls under exemption category 46.101 (b)(4), which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:

(4) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

Please note that this exemption only applies to your current research application, and that any changes to your protocol must be reported to the Liberty IRB for verification of continued exemption status. You may report these changes by submitting a change in protocol form or a new application to the IRB and referencing the above IRB Exemption number.

If you have any questions about this exemption, or need assistance in determining whether possible changes to your protocol would change your exemption status, please email us at <u>irb@liberty.edu</u>.

Sincerely,

Fernando Garzon, Psy.D. Professor, IRB Chair Counseling

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